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ABSTRACT

Information on the educational system of Malaysia and guidelines on the placement of Malaysian students in U.S. high schools and colleges are presented. After a brief introduction on the country and the educational system, attention is directed to preschool, primary, and secondary education. Included are reproductions of certificates of completions and grade reports from different schools, along with information on grading systems. Information is also provided on: pre-university education (higher school, university matriculation programs, and diploma programs); teacher training, including continuing education for school personnel, university education; other tertiary-level education; and nursing, occupational and physical therapy and other allied health programs. Profiles of national universities, polytechnics, and other institutions are included, as are reproductions of sample diplomas and related documents. Guidelines are provided to help admissions officers determine the admissibility and appropriate level of placement of Malaysian students in U.S. institutions. Appended are a glossary and list of acronyms, information on examination subjects for the country's college entrance tests, and lists of Malaysian independent Chinese secondary schools, institutes of agriculture, teacher training colleges, colleges and universities, and a list of occupations requiring vocational training. (SW)

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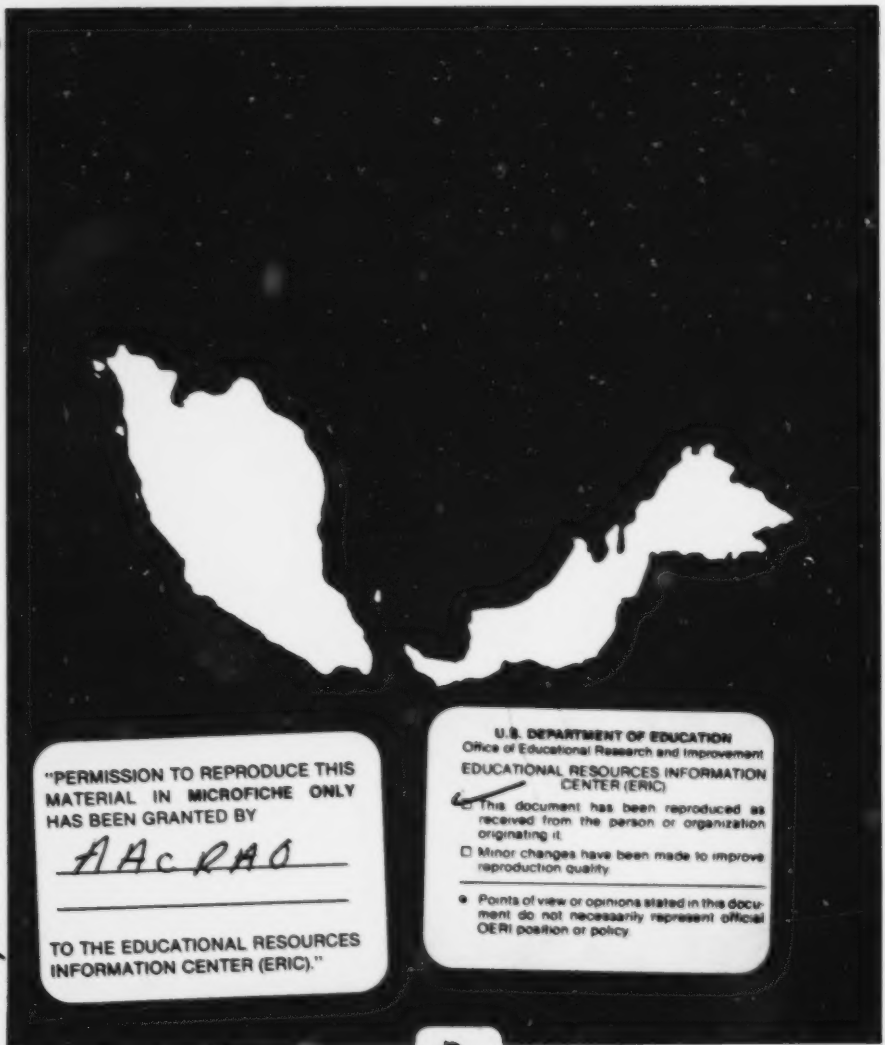
MALAYSIA

Joann Bye Stedman



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Malaysia

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Joann Bye Stedman
Director, International Student Office
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1986

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Preface

I hope this book helps Malaysians. If nothing else, it represents a snapshot of education in their country in 1984-85. The system and the educational institutions are changing at a rapid rate and are almost impossible to chronicle accurately. If this book promotes understanding of Malaysian education in this country, then it will have served its purpose.

Many people have asked me, why Malaysia? What motivated me to write a book about the educational system of Malaysia? There are a variety of answers and people who share responsibility for my interest.

I first became interested in Malaysia while working at Ohio University, Athens, Ohio. I was an admissions officer there in 1972 when OU began to transfer Diploma holders from Institut Teknologi MARA and I suppose I started the first articulation agreements between OU and ITM. Thank you, Jerry Reese, for sending me into the fray.

My next real exposure to Malaysia, other than through credentials evaluation, was through the 1979 JCOW research trip to Hong Kong, Malaysia, the Philippines, and Singapore. As part of the Malaysia/Singapore team, I got to see some of Malaysia first-hand. My experience was guided by the able hand of Homer Higbee and our team was properly introduced to the country by the able internationalists, Linda Heaney and Don Heaney.

Professional responsibilities at both the University of Southern California and Boston University took me back to Malaysia many times. Jim Jones and Anthony T.G. Pallett deserve credit for that.

But Gary Hoover is really to blame. The encouraging words of colleagues are really the key in motivating someone to write one of these volumes. I thank Gary for encouraging me, but remind him that he forgot to tell me how much work it was really going to be.

Once started, a project such as this cannot be stopped. All those who contributed and kept it on track are too numerous to mention but I would like to thank some people who were particularly helpful. In Malaysia, thanks go to: Dr. Marti Thomson, Director, Educational Information Center, Malaysian-American Commission on Educational Exchange and her staff for their continued support over the period of this project; Tan Sri Othman bin Abdul Malek, Secretary General, Ministry of Education and his staff for their cooperation during the research phase of this project; Mr. K. Ragupathy, Assistant Director (Evaluation), Education Planning and Research Division of the Ministry of Education for his assistance with appointments, his helpful and sensitive discussions about education in his country and his assistance doing follow-up work; Dr. Abdul Aziz bin Din, former Deputy Vice Chancellor,

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No words are adequate to thank my husband, Harvey, for his support. Neither of us realized how much this book would impact our lives and he, more than anyone, deserves credit for being patient and encouraging. His willingness to try to cook, dust when it wasn't his turn, do things by himself, and never complain is really appreciated.

Joann Stedman
New York
June 1986

MALAYSIA
THAILAND
PERLIS
Kangar
Alor Setar
KEDAH
Kota Bharu
PENANG
Penang
Kuala Trengganu
PERAK
KELANTAN
TRENGGANU
Ipoh
PAHANG
Kuantan
SELANGOR
Kuala Lumpur
Shah Alam
Seremban
NEGRI SEMBILAN
MALACCA
Malacca
JOHORE
Johore Bahru
INDONESIA
(SUMATRA)
SOUTH CHINA SEA
Kota Kinabalu
SABAH
BRUNEI
SARAWAK
Kuching
INDONESIA
(KALIMANTAN)

Chapter I

Introduction

Official Name: Malaysia.

Location and Size: 128,570 square miles. Western Malaysia (Peninsular Malaysia) on the southern part of the Kra peninsula bound by Thailand to the north and the island of Singapore to the south; Eastern Malaysia on Kalimantan (Borneo) island bordering Indonesia and Brunei.

Population: 15.07 million (1984, UN). Age distribution: 0–14 years, 41.1%; 15–64 years, 55.5%; 65+ years, 3.4%. Median age: 18.8 years. *Bumiputras* (indigenous Malays) comprise 45% of the population; other indigenous tribes, 9%; Chinese, 36%; Indian, 10%. Contemporary Malaysia is a multi-ethnic, multi-cultural nation. This reality dominates both the public and private sectors of the polity.

Religion: Islam, introduced in the fifteenth century, is the official religion. There are also large Christian, Hindu, Confucian, and Buddhist communities.

Language: *Bahasa Malaysia* is the official language, but English is required in school as a second language and is used for some official business.

Government: Malaysia has a federal constitutional monarchy. The head of state is the *Yang di-Pertuan Agong* (Constitutional Monarch), elected to a five-year term from and by the nine hereditary rulers of the Malay sultanates. It has a bicameral legislature, a Prime Minister, a Cabinet, an independent judiciary and a neutral civil service. Effective political authority rests with the parliamentary majority.

Political Subdivisions: Malaysia has thirteen member states: Johore, Kedah, Kelantan, Melacca, Negri Sembilan, Pahang, Penang, Perak, Perlis, Selangor, Terengganu in the west; Sabah and Sarawak in the east. Kuala Lumpur is the national capital and only federal territory.

Economy: Agriculture, fishing, forestry, mining, and oil constitute the most important industries in Malaysia's economy, making it the third richest country in Asia, surpassed only by Japan and Singapore. It is the world's largest producer of rubber and tin, ranks second behind Nigeria in the production of palm oil, and has the world's twenty-second largest oil reserves (although it is not a member of OPEC). Oil income has recently supplanted rubber as the number one source of revenue for the country. In 1981, the GNP was $27.7 billion or GNP per capita, $1,840.

Selected Historical Events:

1400 Melacca was founded although trade had existed for hundreds of years along the Malay Archipelago as part of a network stretching from Africa to China.

1511 The Portuguese captured Melacca.

1602 The Dutch East India Company was founded.

1641 The Dutch captured Melacca from the Portuguese.
1786 The British occupied Penang.
1804 James Brooke acquired Sarawak.
1819 A British *entrepôt* was founded at Singapore.
1824 An Anglo-Dutch treaty was signed (provided for contemporary boundaries between Indonesia and Malaysia).
1874 The Pangkor Treaty formalized the extension of British control.
1878 British North Borneo Company occupied Sabah.
1896 The Treaty of Federation created the Federated Malay States (FMS).
1909 The British established a Federal Council in a move toward future centralization and uniformity.
1941 The Japanese occupied Malaya.
1945 The British reoccupied Malaya.
1948 The Federation of Malaya was created.
1955 Malaya became self-governing.
1957 Malaya became independent.
1963 The Federation of Malaysia was created (September 16).
1965 Singapore seceded from the Federation of Malaysia.

History of Education in Malaysia

At one time or another, the Portuguese, Dutch, Thai, Japanese and British occupied or controlled what is now Malaysia. Chinese and Indians, who had come into the country as laborers, subsequently adopted Malaysia as their homeland. Each had influence on the development of the country. The British, however, were the most influential group and set the pattern in Malaysia for many institutions of government and education. British colonial educational policy was directly tied to the identification of an ethnic group with a specific economic role in society.

English education dates back to the establishment of the Penang Free School (1816), followed by the Raffles Institution in Singapore (1823), and the first government English school, later known as the Clifford School, to educate the sons of the Malay ruling class. Malay College was established in 1905 to train sons of Malay nobility for government service. Colonial officials drew the better graduates into government service and in 1910 implemented a Malay Administrative Service. The rise in government of English-trained Malays and the demand for English-trained clerks in expanding European commercial enterprises reinforced the notion that English education might better assure Malay children of social and economic opportunities. The demand for English education grew (although the British did not wish to educate more people than could be absorbed into the workforce), but the percentage of Malay children (15%) enrolled by 1936 remained low compared to the Chinese (50%) and Tamil (28%) children.

Pre-dating the government-sponsored, Malay-medium schools were the *pondok* (hut) schools and the Islamic religious *madrasah* schools. The *pondok*

schools, organized around a particular *ulamak* (religious scholar), taught Islam as well as academic and vocational subjects. The curriculum took on the individual characteristics of the principal scholar and fostered a sense that to be a Malay was to be a Moslem. The *madrasah* schools followed a set curriculum and used Arabic as the language of instruction in an effort to preserve the Islamic identity of Malay society in a country heavily influenced by the British.

Government-sponsored, Malay-medium schools began in the nineteenth century. Motivation to attend school was low and, though an attempt was made to institute compulsory education in the 1880s and 1890s, most of the schools failed. In 1903, the focus of Malay vernacular education shifted to a study of Malay culture and emphasis was placed on Malay literature printed in *Rumi* (Latin characters) rather than *Jawi* (Arabic characters). The standardization of Malay in 1904, along with the printing of texts in *Rumi*, made the study of Malay culture more accessible to all ethnic groups.

Although not consistently supported, Malay vernacular education persisted. Pre-dated by a teacher training center in Singapore (1878) which moved to Melacca in 1913, and a center in Matang, Perak, the Sultan Idris Training College (SITC) was founded in Perak in 1922 as the first formal Malay Teacher Training College. The focus of SITC was to train teachers in gardening and agriculture, but the school quickly became the center for Malay literary activity.

Initially, education for Indian children was provided by missionaries in schools in Penang, Melacca and Singapore. The colonial government encouraged the education of Indians by opening Tamil-medium schools in Perak and Negri Sembilan in 1870 but assumed that the responsibility for the continuation of education for rural Indian youth should lie with missionaries and plantation owners. Texts were imported from India and instruction was offered primarily in Tamil. The quality of education and the qualifications of teachers varied from estate to estate. Emphasis was on India's history, culture and geography with little included about the country in which the students now lived. At the time the estate schools were established, children from age ten were already working; there was little incentive for children to stay in school or for estate owners to provide education beyond primary school or improve the quality of existing education. In 1937, the colonial government began training Tamil teachers. After World War II, the curriculum was revised to include Malayan-oriented materials and focus on practical skills for employment (agriculture, handiwork, physical education and sewing).

Through the 1940s, rural Tamil-medium primary schools continued to be maintained by estate owners, missionaries and committees of local residents while schools in urban areas were supervised by the government. Schooling beyond the primary level had to be continued in English-medium schools, most of which were too expensive for Tamil laborers. The socioeconomic division between the urban upper and middle class Indians, who had access to English-medium secondary schools, and the urban and rural Indian poor, who did not, was made wider.

Like Indian education in Malaysia, early Chinese education, organized by the Chinese community, was oriented toward the homeland, China. The *kuo*

yu (common or national language used in China) was adopted by the Chinese community in Malaya for instruction in primary school and was a unifying force in the Chinese community. Confucian classics were at the core of a curriculum that was influenced greatly by Chinese political and intellectual trends. Instruction included geography, history, culture and current events (politics) of China with little included about their country of current residence.

In the 1920s and 1930s, Chinese laborers, phased out of the mining industry, changed to other occupations and began to consider the Federated Malay States (FMS) their home. Chinese schools became increasingly politicized. The British intervened in 1919 to institute the School Registration Enactment to curb political activities. Modest efforts to control failed. Rather than confront the political forces, the colonial government attempted to influence Chinese education by providing teacher training programs, substantial subsidies and by recognizing Mandarin as the language of instruction. A basic distrust of the British because of long-term disinterest and neglect caused the Chinese to reject the grants and turn instead to China for support. Although the FMS was their home, there was still strong interest in identifying with their ethnic heritage. For a discussion of the Chinese secondary schools, which were developed from the 1920s, see Chapter II.

In the early 1900s, education in Sabah was offered primarily by missionaries. In 1915, the first government Malay vernacular school was founded but gained support only after it began to offer instruction in the Koran and in English. Government Malay vernacular schools grew in numbers as did government-supported English mission schools. Chinese schools were supported by the Chinese community.

In Sarawak, education was built on the Asian civilization. Instruction in government schools was offered in *Bahasa Malaysia* for Malay youth and in Mandarin for Chinese youth. Mission schools were encouraged by grants for facilities and annual operation. Because of strong support for education from the Chinese community, the government withdrew support for Chinese education. By 1936, three-fourths of the 14,000 school children were Chinese attending independent Chinese and mission schools. Attempts were made to draw Iban and Dayak (non-Moslem indigenous groups) children into the system but not until the 1950s was education extended to a large percentage of the population.

English education provided the opportunity for all ethnic groups to continue their education beyond primary school and began to bridge the gap between the various ethnic groups who could now share a common curriculum and language. Though elitist, English education fostered participation in society by all ethnic groups, while vernacular education fostered pride in the individual identities of the ethnic groups. Postsecondary opportunities opened up with the establishment of the Federal Trade School in 1926 and the Agricultural College at Serdang and a technical school in 1931.

After independence in 1957, Malaysia began building a nation with which all the ethnic groups could identify. Parliament's enactment (1957) of the Education Ordinance, which made *Bahasa Malaysia* a common national lan-

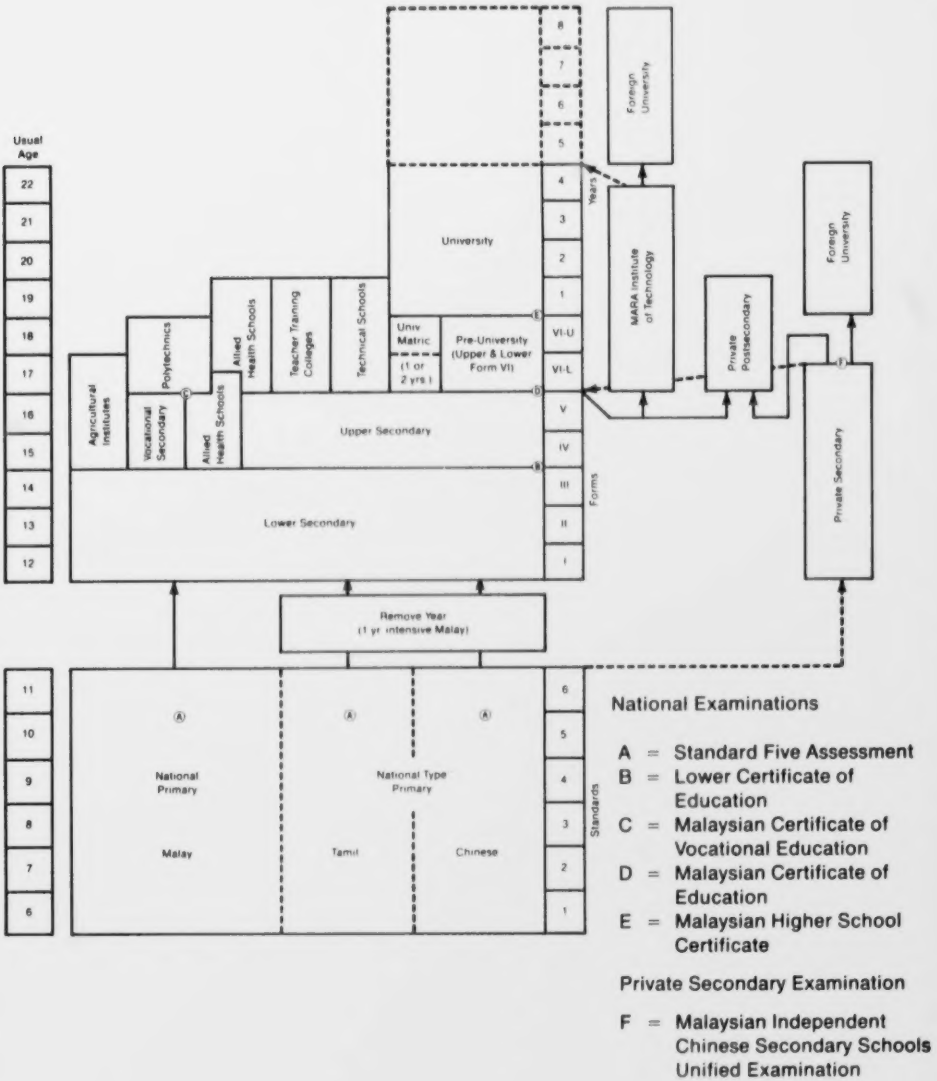
guage to be used in a unified system that would preserve the language and culture of the different ethnic groups in the country, was seen as a key in building national unity (see Chart 1.1). The Education Act of 1961 followed the Ordinance (also known as the Razak Report) and provided for conversion from English to *Bahasa Malaysia* as the medium of instruction in all national schools, free primary education, automatic promotion from Standard One (grade 1) through Form III (grade 9), expansion of technical and vocational education and teacher training, and emphasis on religious and moral education. The Ministry of Education was expanded to implement the Education Act of 1961.

Outlook for Education

When Malaya became independent, wealth and poverty were unequally distributed among the various ethnic groups. The task of addressing poverty, particulary among the *bumiputra* (indigenous people), was a large one. Since 1970, educational policy has been aimed at giving the people of the country one multi-racial system and redressing the socioeconomic standing of the Malays. The government's policy gives preference in education to those in the most disadvantaged positions (which, in this case, is the majority of the people). An affirmative action program has been established which fosters special programs for *bumiputras*. At the postsecondary level, policy provides for admission quotas by ethnic group and scholarships for *bumiputras*, aimed at increasing Malay participation in education and, eventually, in society as a whole. A massive government scholarship program sends thousands of *bumiputra* students to other countries (many to the United States), mostly for bachelor's degree study. Assessment of local educational resources and manpower training needs will be made at the end of the 1980s and, as educational opportunities expand in Malaysia and the training quotas are met, the out-of-country scholarship program will most likely be reduced or other priorities established.

The situation in Malaysia today can only be described as dynamic. Every effort is being made to expand existing educational programs and facilities in Malaysia. All government-supported tertiary institutions are expected to expand in both curriculum and enrollment. Programs that short-circuit the existing national system have been developed. Students are being exported to a variety of countries, not all British patterned, to complete bachelor's degrees. Students are completing bachelor's degrees in other countries by building onto educational programs completed in Malaysia. Education from other countries, particularly the United States, is being imported and replicated (see Chapter VI). Change in existing educational programs is planned, announced and implemented in short periods of time (see Chapter VI). The current dynamic nature of education in Malaysia indicates considerable change for Malaysian education in the next decade, and a Malaysian system will most likely develop that will be a blend of established educational systems from around the world.

Chart 1.1 A Visual Chart of Education in Malaysia



Chapter II

Primary and Secondary Education

Preschool Education

Preschool education is not mandatory and is not part of the national stream of education, although selected private preschool programs have been reviewed by the Ministry of Education. As of 1985, curriculum content has been recommended by the Ministry of Education; however, no thought is being given to instituting supervision over the schools except through licensing. The schools now in operation are privately owned and operated, but must be licensed to operate by the Schools and Teachers Registration Division of the Ministry of Education.

Primary Education—Standards One Through Six

Pelajaran rendah (primary education) in Malaysia falls under the control of the Ministry of Education. The Ministry provides funding for teachers' salaries, instructional materials and facilities maintenance for all schools.

Primary education consists of six grades, called Standards One through Six. While primary school is not compulsory, it is attended by most school age children, normally beginning at age six. The academic year begins in January and ends in November.

Primary education seeks to develop the following: basic skills in communication; civic competencies (attitudes of responsibility and cooperation and a commitment to national unity and solidarity); moral, aesthetic and spiritual values; physical, intellectual and emotional development; scientific knowledge, attitudes and skills. (Ministry of Education 1979, 4)

As part of the unification process that followed after Malaysia gained its independence in 1957, *Bahasa Malaysia* (Malay Language) was designated as the primary language of instruction in the national education system. At the same time Malaysia sought to create a unified nation, it agreed to preserve the language and culture of its different ethnic groups. Thus, by mandate of the Education Act of 1961, children in each of the major language groups in Malaysia (*Bahasa Malaysia*, Chinese and Tamil) could receive instruction in primary school in their mother tongue.

Schools are divided into three streams according to the language of instruction. Those in which *Bahasa Malaysia* is the language of instruction are called "national" schools. The schools in which the language of instruction is Chinese or Tamil are referred to as "national type" schools. In all streams, the national

curriculum is followed, but the hours of instruction vary, particularly in the language area. Approximately 60% of the children in school are enrolled in Malay-medium schools, 32% in Chinese-medium schools and 8% in Tamil-medium schools.

In the English-medium schools, a program to phase out English and phase in *Bahasa Malaysia* as the language of instruction began in 1970 and was completed in 1982 when instruction at all grade levels, primary through higher school, was available in *Bahasa Malaysia*. This changeover was accomplished in an orderly fashion in Peninsular Malaysia. In Sabah and Sarawak, where there are not enough available teachers fluent in *Bahasa Malaysia*, the change was phased in on a slightly delayed schedule.

The curriculum for primary school is standardized, prescribed, developed and constantly reviewed by the Curriculum Development Center of the Ministry of Education. Table 2.1 shows that there are few areas in which instruction differs by stream in the primary school curriculum that was in effect until 1982. The most notable difference was in language instruction. Table 2.2 presents the New Primary School Curriculum that is based on an integrated instructional approach. The first students of the New Primary School Curriculum will graduate from secondary school in 1992.

All students in primary school study *Bahasa Malaysia*. Those, however, in the national-type (Chinese- and Tamil-medium) schools spend fewer hours per week studying *Bahasa Malaysia* than those in Malay-medium schools and the instruction received in *Bahasa Malaysia* is not reinforced in other subjects by constant and consistent use during class hours. Thus, in the national-type schools, the students' level of competency in *Bahasa Malaysia* may not be competitive with the language skills of children in the national schools. Therefore, all children from the national-type schools are required to enroll in the "Remove Year" or "Remove Class" prior to entering Form I of Lower Secondary School. The Remove Year is a year of instruction primarily in *Bahasa Malaysia* and includes a review of courses from Standard Six. There is no procedure by which a child can be exempted from the Remove Year requirement but Ministry of Education officials indicate that, on rare occasion, a child may be considered fluent enough in *Bahasa Malaysia* to waive the requirement. After completion of the Remove Year, children enter Lower Secondary Form I.

Because the required language of the national stream schools and of all the national examinations is *Bahasa Malaysia*, children who attend Chinese- or Tamil-medium schools are encouraged to enter Lower Secondary Form I (grade 7) in the national Malay-medium schools. There is no alternative in Malaysia for Indian children who may wish to study in Tamil since there are no Tamil-medium schools beyond Standard Six in Malaysia. Chinese children, however, may continue their education in Chinese-medium private schools in Malaysia (see Malaysian Independent Chinese Secondary Schools later in this chapter).

Promotion from year to year in primary school is automatic. In the past, there was a standardized examination at the end of Standard Three to ascertain the progress and skills of each child. However, the Standard Three Assess-

Table 2.1. Primary School Curriculum (to 1981): Prescribed Subjects in Hours of Instruction per Week

	Standards						Medium of
	1	2	3	4	5	6	Instruction*
Subjects	Hours per Week						
Arts and Crafts	2.0	2.0	1.5	1.3	1.3	1.3	M, C, T
Assigned by Headmaster to increase compulsory subjects time	1.3	1.3	1.5	1.2	3.3	3.3	M
or to introduce optional subjects	1.3	1.3	1.5	0.5	2.7	2.7	C, T
Civics	–	–	–	0.7	0.7	0.7	M, C, T
Geography	–	–	–	1.3	1.3	1.3	M, C, T
Group Activities	–	–	1.0	1.0	2.0	2.0	M, C, T
Health Education	0.8	0.8	1.0	0.5	0.7	0.7	M, C, T
History	–	–	–	1.3	1.3	1.3	M, C, T
Islamic Religious Knowledge (reqd. only for Moslems)	2.0	2.0	2.0	2.0	2.0	2.0	M
Language:							
Bahasa Malaysia	5.0	5.0	5.0	5.0	5.0	5.0	M
	3.0	3.0	3.0	3.3	3.3	3.3	C, T
Chinese	–	–	–	–	–	–	M, T
	7.0	7.0	7.0	6.7	6.0	6.0	C
English	5.0	5.0	5.0	5.0	5.0	5.0	M
	–	–	2.0	2.7	3.3	3.3	C, T
Tamil	–	–	–	–	–	–	M, C
	7.0	7.0	7.0	6.7	6.0	6.0	T
Local Studies	0.5	0.5	0.5	–	–	–	M, C, T
Mathematics	3.5	3.5	3.5	2.7	2.7	2.7	M
	3.5	3.5	3.5	2.7	2.0	2.0	C, T
Physical Education	1.3	1.3	1.5	1.0	1.3	1.3	M, C, T
Pupil's Own Language (unless medium of instruc. of school)†	–	–	(2.0	2.0	2.0	2.0)	C, T
Science	1.5	1.5	1.5	2.0	2.0	2.0	M, C, T
Total Minimum Hours/Week	22.9	22.9	24.0	25.0	28.6	28.6	M
	20.9	20.9	24.0	25.0	27.9	27.9	C, T

Source: Ministry of Education, "National System of Education in Malaysia," 1979, pp. 58–59.

*M = Malay-medium, C = Chinese-medium, T = Tamil-medium schools.

†Hours in parentheses are not included in the total.

Table 2.2. New Primary School Curriculum: Prescribed Subjects in Hours of Instruction per Week

	Standards							Medium of
	1a*	1b	2	3	4	5	6	Instruction†
Subjects	Hours per Week							
Art	1.0	1.0	1.0	1.0	1.0	1.0	1.0	M, C, T
Islamic Relig. Knowledge *or*	3.0	3.0	3.0	3.0	3.0	3.0	3.0	M
Moral Ed.	2.5	2.5	2.5	2.5	2.5	2.5	2.5	C, T
Language‡								
Bahasa Malaysia	11.5	7.5	7.5	7.5	5.5	5.5	5.5	M
	0.0	4.5	4.5	3.5	2.5	2.5	2.5	C, T
Chinese	12.0	7.5	7.5	7.5	5.5	5.5	5.5	C
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	M, T
English	0.0	4.0	4.0	4.0	3.5	3.5	3.5	M
	0.0	0.0	0.0	1.0	1.5	1.5	1.5	C, T
Tamil	12.0	7.5	7.5	7.5	5.5	5.5	5.5	T
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	M, C
Man and His Environment	0.0	0.0	0.0	0.0	4.0	4.0	4.0	M, C, T
Mathematics	3.5	3.5	3.5	3.5	3.5	3.5	3.5	M, C, T
Music	1.0	1.0	1.0	1.0	1.0	1.0	1.0	M, C, T
Phys. Ed.	1.0	1.0	1.0	1.0	1.0	1.0	1.0	M, C, T
Assembly	0.5	0.5	0.5	0.5	0.5	0.5	0.5	M, C, T
Co-Curricular Activities	1.0	1.0	1.0	1.0	1.0	1.0	1.0	M, C, T
Total Hours/Week	22.5	22.5	22.5	22.5	24.0	24.0	24.0	M, C, T

Source: Ministry of Education, 1985. (mimeographed)

*Standard One curriculum changes mid-year; 1a represents the time allocation for January to June and 1b represents July to December.

†M = Malay-medium, C = Chinese-medium, T = Tamil-medium.

‡When classes in manipulative skill building are held, the 30 minute time block is subtracted from the language of instruction.

ment (in *Bahasa Malaysia,* the *Ujian Darjah Tiga* or *Peperiksaan Darjah Tiga*) was not offered in all states and has subsequently been eliminated altogether.

The *Peperiksaan Darjah Lima* (PDL) is an assessment examination administered by the Examination Syndicate of the Ministry of Education during Standard Five (grade 5) to ascertain the level of achievement of each student. (**Note:** The PDL, the *Peperiksaan Penilaian Darjah Lima* [PPDL] and the Standard Five Assessment [SFA] are terms which can all be used interchangeably. The various forms reflect the language in which the exam was administered [PDL

and PPDL in *Bahasa Malaysia* and SFA in English] or the evolution of the examination. The initialism PDL will be used throughout the book as it reflects the current usage but is meant to imply any previous form of the test in either language.) Table 2.3 presents an analysis of PDL results by percentage, by language of instruction and by grade. There is great interest in identifying talented children at the earliest possible stage and, on the basis of the PDL, selecting Malay children for special schools (see Junior Science Colleges later in this chapter). Beginning in 1987, the examination may be phased out and replaced by another examination which will more adequately measure the New Primary School Curriculum.

Secondary Education

Sekolah menengah (secondary school) education in Malaysia is also under the jurisdiction of the Ministry of Education and is patterned after the British system of education. The objectives of secondary education are to raise the level of general education of the people, to fully develop the human resources of the nation and to supply the manpower requirements of the rapidly evolving economy of Malaysia. (Ministry of Education 1979, 4) Course content is set by the Curriculum Development Center. Secondary school is divided into two parts: *sekolah menengah rendah* (lower secondary school) or Forms I, II and III and *sekolah menengah* (upper secondary school) or Forms IV and V.

Lower Secondary School—Forms I Through III

In 1957, an entrance examination for secondary school, the Malayan Secondary School Entrance Examination (MSSEE) was introduced. The MSSEE was administered at the end of Standard Six in *Bahasa Malaysia*, English, Chinese and Tamil. However, because the process of eliminating children from the system of education was found incompatible with national goals, this particular exam was eliminated in 1964.

Today, after six years of primary school, children are automatically promoted to *sekolah menengah rendah* (lower secondary school). Students in Form I are normally eleven years of age. As in primary school, education at this level is not compulsory. The academic year begins in January and ends in November. *Bahasa Malaysia* is the medium of instruction in all states. English is a required second language. The subject areas taught in Forms I, II and III and the time spent in class in the Remove Year (see Primary Education) and Forms I through III of lower secondary school are detailed in Table 2.4. At the end of Form III (grade 9), students sit for the Malay-medium *Sijil Rendah Pelajaran* (SRP), formerly administered in English and called the Lower Certificate of Education.

Table 2.3. Analysis of *Peperiksaan Darjah Lima* (Standard Five Examination) Results, 1985, by Language of Instruction and Distribution by Grade

Subject	Language of Instruction*	Grade A	B	C	D	E
Bahasa Malaysia	BM	26.0	32.3	16.6	11.5	13.6
	C	1.4	6.9	13.2	27.8	50.7
	T	0.6	3.8	8.6	27.1	59.9
Chinese	C	15.4	20.6	28.0	19.3	16.7
English	BM	15.5	12.7	34.1	18.7	19.0
	C	18.4	18.4	33.4	15.2	14.6
	T	8.1	18.4	34.7	18.8	20.0
Tamil	T	16.6	27.6	27.0	14.0	14.8
History & Geography	BM	12.7	23.2	28.8	16.8	18.5
	C	4.7	21.7	31.4	21.2	21.0
	T	1.0	8.6	28.9	28.7	32.8
Mathematics	BM	13.8	23.3	29.4	21.0	12.5
	C	33.1	32.9	19.0	9.4	5.6
	T	4.9	17.0	29.6	28.1	20.4
Science	BM	16.2	29.6	27.2	17.9	9.1
	C	15.1	33.1	25.5	17.9	8.4
	T	1.7	12.7	29.7	35.1	20.8

SOURCE: Ministry of Education, 1985.

*The number of students examined by language (rounded to the nearest 100): *Bahasa Malaysia* (BM), 238,100; Chinese (C), 95,500; Tamil (T), 11,200.

Table 2.4. Lower Secondary School Curriculum: Prescribed Subjects in Hours of Instruction per Week

Subjects	Remove Year	Forms I–III
	Hours per Week	
Art and Craft/Music	1.3	1.3
Civics	0.7	0.7
Geography (Local geog.; landforms & reg. geog. of S. continents & Asia; nat. zones [equat. forests & monsoon regs.]; rel. map work)	1.3	–
Health Education	–	0.7
History (Ancient trad. admin. sys.; Brit. activs. in Malay.; cultur. dev.; formation of Malay. nation & compar. hist.; Japan. occupa.; Malay.'s reln. with the West; rise of nat'lism in Malay. & neighbor. countries; soc., econ. & pol. dev. of Malays & other indigen. people)	1.3	–
History and Geography	–	2.0

Islamic Religious Knowledge (Compul. for Moslem students only)	–	2.0
Language		
Bahasa Malaysia (Grammar, reading & comprehen., composi., sketches & *Jawi* script)	10.0	4.0
English (Composi., read. & comprehen.)	3.3	4.0
Pupil's Own Language (POL)	2.7	(2.0)*
Math (Algeb. form.; circles; coordinates; cubes & cuboids; decimals; fracs., ratios & percents.; integers, rational no. sys.; length, area & vol.; lines, angles & parallels; logarithms; neg. nos.; rate, ratio & proportion; ratation; sq. & sq. roots; sets; stats.; symmetry; triangles & quadrilat.; vectors & trig.; whole nos.)	2.0	3.3
Physical & Health Education	1.3	–
Physical Education	–	1.3
Science/Integrated Science (Acids & bases, energy, food, gas, heat, hydrogen, living things, matter)	2.0	3.3
Choice of One	–	2.7
Agr. Sci. (Agr. in Malay.; crop. prod.; farm mgt.; farm tools & machin.; livestock prod.; soil sci.)		
Commer. Studies (Bkkpg. [from Form II] incl. accts. & entries, trial bal.; cash & trade discounts; final accts.; subsid. books & posting); Commer. (advert., banking, bus. ownershp., capital, communica., insur., occupations, retail & wholesale trade, starting a bus., transport.)		
Home Sci. (Cookery & nutri., housecraft & laundry work, needlework & dressmaking)		
Indus. Arts (Elec., metalwork, power mech., rel. draft., woodwork)		
Optional Subjects* (For. lang., hist. & geog., music, tech. draw., other subjs. approved by Registrar)	–	1.3
Subject at Headmaster's Discretion	0.7	–
Group Activities	3.0	3.0
Minimum Hours per Week	29.6	29.6

SOURCE: Ministry of Education, "National System of Education in Malaysia," 1979, pp. 20–22, 60.
*Non-Moslem students will study their own language. Hours in parentheses are not figured into the total.

SIJIL RENDAH PELAJARAN/LOWER CERTIFICATE OF EDUCATION

Note: The terms Lower Certificate of Education (LCE) and *Sijil Rendah Pelajaran* (SRP) are interchangeable and refer to the same examination administered at

the end of Form III (grade 9). The different terms are employed when referring to the same examination given in English (LCE) or *Bahasa Malaysia* (SRP). In Sarawak, a form of the same examination used to be administered and was called the Sarawak Junior Certificate (SJ). For purposes of this book, the *Bahasa Malaysian* term, *Sijil Rendah Pelajaran* (SRP) will be used as it reflects the current usage but encompasses any previous form of the test given in any language.

Introduced in 1960, the *Sijil Rendah Pelajaran* (SRP), formerly the Lower Certificate of Education (LCE), is a standardized, external public examination that is set by the Ministry of Education Examination Syndicate. Students who are successful on the SRP may advance to Form IV in either the academic/technical or vocational streams, may leave the formal system of education and opt for purely vocational training or may leave education altogether to seek employment. The SRP is seen as a minimum qualification for some types of employment and for entrance to some types of further training (see Vocational Education later in this chapter).

The SRP examination is given entirely in *Bahasa Malaysia* in Peninsular Malaysia, Sabah and Sarawak, except for the exams which test other languages. To earn the full certificate, candidates must sit for a minimum of six and a maximum of eight subjects at one sitting. Exams are offered in the following twenty-five subjects: Agricultural Science; Agricultural Science Alternative; Art, Imaginative Composition, Design, Craft; Christian Religious Knowledge/Knox; Christian Religious Knowledge Revised/New English Bible; Commercial Studies; Geography; History; Home Science; Industrial Arts; Integrated Science; Islamic Religious Knowledge; Language (Arabic, *Bahasa Malaysia*, Chinese, English, French, Punjabi, Tamil, Telegu); Mathematics; Modern Mathematics; Music; Science; Technical Drawing. (Ministry of Education 1979, 65)

The grading scale for the SRP, with the suggested U.S. equivalents approved by the National Council on the Evaluation of Foreign Educational Credentials, is as follows:

Grade	Remarks	Suggested U.S. Equivalents
1 and 2	Very Good	A
3 and 4	Credit	B
5 and 6	Credit	C
7 and 8	Pass	C–/D
9	Fail	F

In addition to grades in each subject, the certificates are given an overall grade depending on the level of accomplishment of the student. The conditions for earning each grade of the SRP are as follows:

Grade A Receive an aggregate of no more than 34 points on the five best subject exams taken at one sitting. Meet the following distribution requirements: a) three of the following with a minimum grade of Pass (*Bahasa Malaysia*, English, Geog-

raphy or History, Math or Modern Math); b) one of the following with a minimum grade of Pass (Agricultural Science or Agricultural Science Alternative, Commercial Studies, Home Science, Industrial Arts, Science or Integrated Science); c) one from the remaining subjects offered with a minimum grade of Pass.

Grade B Satisfy Parts a and b (above) of the Grade A Certificate.

Grade C Satisfy Part a (above) of the Grade A Certificate with at least a grade of Pass in five subjects.

Only those students with a Grade A Certificate are allowed to continue on in Form IV of an academic secondary school. Students who receive the SRP with Grade B or C Certificates continue on in a vocational stream of upper secondary school.

Only the subjects for which grades of Pass or better are received are listed on the certificate. Grades 1 through 8 are shown along with the description (Very Good, Credit or Pass). Students who do not pass the SRP but who are successful in obtaining at least a Pass on any one subject receive a statement of examination results. (Ministry of Education 1979, 66)

During the 1978 testing year, 182,346 students sat for the combined sitting for the SRP and the LCE (administrations in *Bahasa Malaysia* and English, respectively). Of this number, 83,709 (45.9%) received Grade A Certificates; 19,321 (10.6%) received Grade B Certificates; 2,794 (1.5%) received Grade C and 66,471 (36.4%) received Pass in one or more subjects. Those who failed numbered 10,051 (5.5%). (Ministry of Education 1979, 45) See Document 2.1 for a sample SRP.

It should be noted that the SRP is expected to be phased out starting in 1991. Another examination will take its place but the details of the exam have not yet been announced. A New Secondary School Curriculum will be phased in beginning in 1989 following the complete phasing in of the New Primary School Curriculum.

Upper Secondary Education—Forms IV and V

Students who successfully pass the SRP and are selected to continue their education in *sekolah menengah* (upper secondary school) or Forms IV and V of the national system are directed into either the two-year academic or vocational stream. The largest number (those with the highest SRP scores) go into the academic stream, which is subdivided into arts, science and technical tracks. Those students who have an aptitude for engineering are put into the technical track, which is an academic track with a technical orientation and should not be confused with the vocational track. The rest of the students go into the vocational stream, which offers various trade and vocational subjects. Table 2.5 presents the course content in Forms IV and V and includes the hours allotted to subjects in the academic and vocational streams.

AA 127447
GP 176666

KEMENTERIAN PELAJARAN MALAYSIA

SIJIL RENDAH PELAJARAN

Bahawasanya inilah dinyatakan calon yang tersebut namanya di bawah telah mengambil peperiksaan untuk sijil yang tersebut di atas dalam bulan Oktober 1977, dan telah mencapai sekurang-kurangnya peringkat 8 dalam matapelajaran-matapelajaran yang tertulis di bawah dengan peringkat yang diperolehinya ditunjukkan di hujung tiap-tiap matapelajaran itu.

NO. K/P

SEK MEN JENIS KEB TANAH PUTIH
KUANTAN PAHANG

BAHASA MALAYSIA (DGN.LISAN)	2	(TERBAIK)
ENGLISH LANGUAGE	3	(KEPUJIAN)
TAWARIKH	4	(KEPUJIAN)
ILMU ALAM	2	(TERBAIK)
CHINESE	4	(KEPUJIAN)
MODERN MATHEMATICS	1	(TERBAIK)
COMMERCIAL STUDIES	1	(TERBAIK)
INTEGRATED SCIENCE	3	(KEPUJIAN)

SIJIL PANGKAT- A
JUMLAH MATAPELAJARAN- LAPAN
MENERUSI PERANTARAAN BAHASA INGGERIS

ANGKA GILIRAN 30041004

Pengarah Peperiksaan,
Kementerian Pelajaran Malaysia.

Cap Lembaga Peperiksaan

2.1. *Sijil Rendah Pelajaran* (SRP) with Translations Typed in by the School

Table 2.5. Upper Secondary School Curriculum: Prescribed Subjects in Hours of Instruction per Week

Subjects	Academic Track			Vocational Track		
	Arts	Sci.	Tech.	Agr.	Com.	Home Sci.
Accounts, Principles of (Assets; bal. sheet & analy.; capital & transact. [records & docs.]; jnt. stock co. [appropriation acct.; distnct. btwn. nominal, authorized, call-up & paid-up capital & btwn. preference, ordinary, deferred stock units & debentures]; liabilities; prin. bks. of accts.)	–	–	–	–	2.7	–
Agricultural Science (Agron. [soil]; crop. prod.; farm mgt.; forest. & conserv.; livestock prod.; mktg.; ornamen. hort.; plant protect.)	–	–	–	3.3	–	–
Arts & Crafts/Music	1.3	–	–	–	1.3	1.3
Biology (Anim. nutri.; coloniza. of a habitat & interact. within a comm.; depend. of life on water; detect. changes in environ.; interdepend. of liv. organisms with environ.; microbiol.; one organism as a habitat for another; respira.; reproduc. & variation; shape; size; soil habitat & soil comm.; support & movement; surface; water & body growth)	–	3.3	–	3.3	–	–
Chemistry (Acids & bases; atoms & chem.; chem. testing; competit. among elem.; elec. & chem.; energy & chem. change; nitrogen & its compds.; oxida. & reduc.; periodic table of elements; rates of reaction; revers. reaction & equilib.; struct. of substances)	–	3.3	2.7	3.3	–	–
Choice of One: Islamic Religious Knowledge† *or* Pupil's Own Language	2.0	2.0	2.0	2.0	2.0	2.0
Choice of One: Building & Geometrical Design *or* Mechanical & Geometric Design	–	–	2.0	–	–	–
Choice of Two: Cookery, Needlework & Dressmaking, General Housecraft	–	–	–	–	–	5.3
Civics	0.7	0.7	0.7	0.7	0.7	0.7

continued

Table 2.5

Subjects	Academic Track			Vocational Track		
	Arts	Sci.	Tech.	Agr.	Com.	Home Sci.
Commerce (Communica. & transport., fin., insur., trade, warehous. & advert.)	–	–	–	–	2.7	–
English Language (Descrip. & explana. of proced.; oral & writ. communica.; social, bus. & formal corresp.; speeches for soc. occa.; summary of extended pieces of info. & expans. of notes & memoranda; transl. of info. fr. *Bahasa Malaysia;* transl. of oral or written info.)	2.7	2.7	2.7	2.7	2.7	2.7
Engineering Workshop Practice or Building Construction (Bldg. construc.; com.; engr. wkshp. prac.; geom. & bldg. draw.; geom. & mech. draw.; surv.)	–	–	2.7	–	–	–
Geography (Elem. of phys. geog.; elem. of world human geog.; map work; reg. geog. [Malay. & SE Asia, S. & E. Asia, W. Eur. & N. Amer.])	2.0	–	–	–	2.0	2.0
History (Arrival of Europ. & Brit. rule of Malaya, hist. of Malaya fr. 1400 to present [incl. Melacca Sultanate], rise of nat'lism & formation of Malaysia)	2.0	–	–	–	2.0	2.0
Literature/Other Subject Approved by Registrar	2.0	–	–	–	–	–
Malay Language (Composi., life, folklore, customs of Malays, Malay. way of life)	3.3	3.3	3.3	3.3	3.3	3.3
Math (Graphs of algeb. funct., linear equat., linear prog., matrices, naviga., probabil., quadrat. express. & equat., slide rule, std. form, stat., variation & graphs, vectors)	3.3	2.7	3.3	2.7	2.7	2.7
Math, Additional (For stud. in sci. & tech. tracks: algeb. struct., mech., pure math, stat., vectors)	(2.7)*	2.7	(2.7)*	–	–	–
Physical Education	1.3	1.3	1.3	1.3	1.3	1.3

Physics (Charges & currents; electrons & radioact.; electromagnet. & alter. current; energy; force; light; liquids & gases; measure.; motion; satell. & planets; solids; space flight; vibrations & waves)	–	3.3	3.3	2.7	–	–
Science, General (Atom. struct.; brain; breeding; color; energy convers.; diseases; elec. current & magnet.; elec. energy; electroly.; fertiliz.; food; force; hist. of commun.; image & lenses; liquids & gases; microbes; particle theory of matter; prod. & disposal of heat in human body; radioact.; sense organs; solids, liquids & gases; sources of energy; variation)	3.3	(3.3)*‡	–	–	3.3	3.3
Science, Add. General	2.7	(2.7)*‡	–	–	–	–
Social Studies, Geography & History	–	2.0	2.0	2.0	–	–
Surveying/Additional Mathematics	–	–	2.0	–	–	–
At Discretion of Headmaster (excl. group acts.)	2.7	–	–	–	–	–
Group Activities	3.0	2.3	1.7	2.3	3.0	3.0
Minimum Hours per Week	32.3	29.6	29.7	29.6	29.7	29.6

SOURCE: Ministry of Education, "National System of Education in Malaysia," 1979, pp. 22–27, 61.

*Time allocated in parentheses is not included in the total number of hours per week.

†Compulsory for Moslem students.

‡Where Gen. Sci. & Add. Gen. Sci. are taken in lieu of Biol., Chem., Physics, the excess 3.9 hours may be used at the Headmaster's discretion.

Since 1980, the medium of instruction through Form V has been *Bahasa Malaysia;* English is required as a second language. Upper secondary school culminates in major examinations which are patterned after British Ordinary Level exams. Successful candidates are awarded one of two certificates: academic stream students earn the *Sijil Pelajaran Malaysia* (SPM), called the Malaysian Certificate of Education (MCE) when administered in English, while vocational stream students earn the *Sijil Pelajaran Vokesynal Malaysia* (SPVM), called the Malaysian Certificate of Vocational Education (MCVE) when administered in English. (See Vocational Education later in this chapter.) For more information on the programs in Forms IV and V, see Examinations and Examining Bodies later in this chapter.

SIJIL PELAJARAN MALAYSIA/MALAYSIAN CERTIFICATE OF EDUCATION

Note: The terms Malaysian Certificate of Education (MCE) and *Sijil Pelajaran Malaysia* (SPM) are interchangeable and refer to the same examination administered at the end of Form V. The different terms are employed when referring to the same examination given in English (MCE) or *Bahasa Malaysia* (SPM). For purposes of this book, the *Bahasa Malaysian* term, *Sijil Pelajaran Malaysia* (SPM) will be used as it reflects the current usage but encompasses any previous form of the test given in English or *Bahasa Malaysia*.

The Malaysian Certificate of Education examinations are patterned after General Certificate of Education Ordinary Level examinations and some certificates will carry designations of accomplishment considered agreed-upon equivalents to the G.C.E. "O" Level standards.

At the conclusion of Form V, students take a major examination to earn the *Sijil Pelajaran Malaysia* (SPM). Students sit for the public exam in November of each year and the official results are announced in April. The SPM is an external, competitive, standardized public examination and is prepared and administered by the Ministry of Education Examination Syndicate. Students who are planning to leave school and enter the work force usually leave after this exam.

The subjects offered in the SPM are as follows:

I. Compulsory Subjects: *Bahasa Malaysia* (Malay Language).
II. General Subjects: Group A—Bible Knowledge, Chinese Literature, English Literature, Islamic Religious Knowledge, Malay Literature, Tamil Literature. Group B—Geography, History, Malaysian Studies.
III. Languages: Arabic, Chinese, English (Syllabus 322, formerly 122, is compulsory for the full certificate), French, German, Punjabi, Tamil.
IV. Mathematics: Math (Syll. B), Math (Syll. C), Additional Math.
V. Sciences: Additional General Science, Agricultural Science, Biology, Chemistry, General Science, Human and Social Biology, Physical Science, Physics.
VI. Arts and Crafts: Art, Fashion and Fabric, Food and Nutrition, Metalwork, Music, Woodwork.

VII. Technical and Commercial: Building Construction, Commerce, Commercial Studies, Engineering Science, Engineering Workshop Practice, Geometrical and Building Drawing, Geometrical and Mechanical Drawing, Principles of Accounts, Surveying.

Notes: *Bahasa Malaysia* and English are compulsory when sitting for a full certificate. Candidates must take an oral as well as a written exam. For those who pass the subject, the score for the oral test is shown after the subject name. All exams in *Bahasa Malaysia*, Chinese and Tamil language and literature are given and answered in the target language. No translations are required during the examination. Exams in Building Construction and Engineering Workshop Practice are available only to candidates in secondary technical schools approved by the Ministry of Education. Exams in Fabric and Fashion, Food and Nutrition are normally offered to national stream candidates only. Private school candidates may take the exams if the State Director of Education feels that the school/institution where instruction was received was suitably equipped to teach the subject. (Ministry of Education 1979, 67)

The grading scale for the SPM, with the suggested U.S. grade equivalents approved by the National Council on the Evaluation of Foreign Educational Credentials, is as follows:

Grade	Remarks	Certificate Symbol	Suggested U.S. Equivalents
1 and 2	Very Good	P	A
3 and 4	Pass with Credit	P	B
5 and 6	Pass with Credit	P	C
7 and 8	Pass	S	C–/D
9	Fail	F	F

The certificates are given an overall classification (Division or Grade One, Two or Three), depending on the student's level of accomplishment. The aggregate is figured on the six best exam scores. The top students will have the lowest scores on their examinations and will be given the highest classification. The conditions for receiving the different Divisions of the certificate are as follows:

Division One Certificate—Earn an aggregate score of not more than 24 on the best six subjects, and receive Credit in at least five subjects (including *Bahasa Malaysia*). Course distribution must include at least three subjects from Groups II through VII (see above).

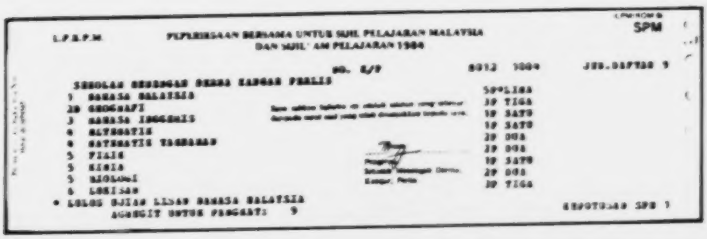
Division Two Certificate—Earn an aggregate score of not more than 34 on the best six subjects, and receive a Pass in *Bahasa Malaysia* and Credit in at least four subjects. Subject distribution must include at least three courses from Groups II through VII (see above).

Division Three Certificate—Earn an aggregate score of not more than 45 on the best six subjects, and receive a Pass in *Bahasa Malaysia*.

In addition to the scores, the following distribution requirements must be met: *Bahasa Malaysia* (Malay Language); English Language; one subject from

Group II, Sub-group B; three subjects from Groups II through VII (see course listings above).

To earn a full SPM certificate, students must sit for a minimum of six and a maximum of nine exams. Candidates must take all examinations in one sitting, reach a satisfactory general standard as judged by performance in the six best exams, pass at least five subjects (including *Bahasa Malaysia*) with Credit in at least one subject *or* pass in at least four subjects (including *Bahasa Malaysia*) with Credit in at least two subjects. The certificate awarded shows the successful examination results. See Document 2.2 for a sample SPM result slip and Document 2.3 for a sample SPM.



2.2. Early *Sijil Pelajaran Malaysia* (SPM) Result Slip Issued by Examination Syndicate

Students who are not interested in earning the full certificate may sit for fewer than six subjects but a full certificate will not be awarded. Students who are not successful in earning the full certificate and those who sit for fewer than six subjects will be awarded the *Sijil* ***Am*** *Pelajaran*/ **General** Certificate of Education, if Credit is earned in at least one subject.

Results of the SPM and MCE examinations are combined and shown in Table 2.6. The table does not take into account differences in examination results during the transition period when examinations in English were being phased out and examinations in *Bahasa Malaysia* were phased in. It also does not account for students who sat for examinations as private candidates. Table 2.7 shows SPM results for private school candidates and public school candidates in 1981, 1982 and 1983.

It is anticipated that the SPM will be phased out beginning in 1993. Another examination will take its place, but details of the proposed exam have not yet been announced. A New Secondary School Curriculum will be phased in beginning in 1989 when the phasing in of the New Primary School Curriculum (see Primary Education) has been completed.

KEMENTERIAN PELAJARAN MALAYSIA

MINISTRY OF EDUCATION MALAYSIA

LEMBAGA PEPERIKSAAN
EXAMINATIONS SYNDICATE

Bahawasanya inilah dinyatakan iaitu calon yang tersebut namanya di bawah ini telah memasuki Peperiksaan Bersama bagi Sijil Pelajaran Malaysia dan Sijil Am Pelajaran (S.A.P.) dan berkelayakan menerima

SIJIL PELAJARAN MALAYSIA

BAHAGIAN SATU

yang mengandungi juga SIJIL AM PELAJARAN. Calon ini telah mencapai sekurang-kurangnya Pangkat 8 dalam mata pelajaran-mata pelajaran yang disebutkan dan telah mencapai darjah lulus Peringkat Biasa Sijil Am Pelajaran seperti yang tercatit bagi mata pelajaran-mata pelajaran berkenaan.

KP A0123333 9008 1077

SEK MEN CONVENT BUKIT BARAS KUALA LUMPUR

		Pangkat *(Grade)*	Peringkat S.A.P. *(G.C.E. Standard)*
BAHASA MALAYSIA		6 ENAM	BIASA ORDINARY
ENGLISH LANGUAGE (CORE)		1 SATU	BIASA ORDINARY
GEOGRAFI	(GEOGRAPHY)	3 TIGA	BIASA ORDINARY
MATEMATIK	(MATHEMATICS)	2 DUA	BIASA ORDINARY
MATEMATIK TAMBAHAN	(ADDITIONAL MATHEMATICS)	2 DUA	BIASA ORDINARY
FIZIK	(PHYSICS)	2 DUA	BIASA ORDINARY
KIMIA	(CHEMISTRY)	3 TIGA	BIASA ORDINARY
BIOLOGI	(BIOLOGY)	2 DUA	BIASA ORDINARY

JUMLAH MATA PELAJARAN LAPAN — KELULUSAN S.A.P. LAPAN

CALON INI TELAH JUGA LULUS DALAM UJIAN LISAN BAHASA MALAYSIA

PEPERIKSAAN NOVEMBER/DISEMBER 1982

Pengarah Peperiksaan
(Director of Examinations)
Kementerian Pelajaran Malaysia
(Ministry of Education Malaysia)

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(Sila lihat di sebelah)

2.3. **Sample *Sijil Pelajaran Malaysia* (SPM)**

Table 2.6. SPM/MCE Results, Selected Years (School Candidates)

Years	Divisions I	II	III	GCE	Fail	% Receiving Full Cert.	Total Taking Exams
1970	5,291	7,463	14,229	14,160	7,248	26,983	48,391
	(10.9)	(15.4)	(29.4)	(29.3)	(15.0)	(55.8)	
1975	9,106	14,217	29,781	19,502	9,748	53,104	77,354
	(11.8)	(18.4)	(38.5)	(25.2)	(12.6)	(68.7)	
1978	12,097	16,600	37,483	22,913	21,872	66,180	110,965
	(10.9)	(15.0)	(33.8)	(20.6)	(19.7)	(59.6)	
1984	17,738	33,813	51,430	–	–	102,981	150,379
	(11.8)	(22.5)	(34.2)	–	–	(68.5)	
1985	15,228	33,686	51,836	–	–	100,750	153,817
	(9.9)	(21.9)	(33.7)	–	–	(65.5)	

SOURCE: Ministry of Education, 1985.

Table 2.7. SPM Results, 1981, 1982 and 1983

Standards Reached on Examinations	1981 Candidates School	1981 Candidates Private	1982 Candidates School	1982 Candidates Private	1983 Candidates School	1983 Candidates Private
% Receiving Division I	8.7	1.9	8.0	2.3	9.3	1.6
% Receiving Division II	20.1	10.9	20.2	12.7	21.7	11.8
% Receiving Division III	37.5	34.8	35.2	34.9	35.4	36.5
% Receiving Full Certificate	66.3	47.6	63.4	49.9	66.4	49.9
# Receiving Full Certificate	80,909	26,560	87,014	31,911	95,147	35,268
Total Sitting for Examination	122,048	55,761	137,226	63,943	143,115	70,748

SOURCE: Ministry of Education, 1985.

Vocational Education

Pelajaran vokesynal (vocational education) is taught in Forms IV and V. Students who are successful on the *Sijil Rendah Pelajaran* (SRP) examination (end of Form III or grade 9) and wish to continue their studies but are directed into the vocational stream follow a course which will lead either to employment or further education in a vocational school. The two-year course culminates in the examination for the *Sijil Pelajaran Vokesynal Malaysia* (SPVM). The voca-

tional program of study includes some of the same courses as the academic stream (see Table 2.5) but with smaller blocks of time allocated to them. Major emphasis is placed on gaining vocational skills. The vocational courses are outlined below.

Agriculture: Animal Production, Crop Production, Farm Management, Farm Tools and Machines, Ornamental Horticulture.

Air Conditioning and Refrigeration: Electric Wiring, Principles of Air Conditioning and Refrigeration, Repair of Air Conditioning and Refrigeration, Related Drawing.

Commerce: Bookkeeping, Commercial Arithmetic, Commercial English, Commercial Practice, Shorthand, Typewriting.

Fitting and Machining: Fitting (fabrication of machine parts), Lathework (making bolts, nuts, other parts), Machining (engine parts), Related Drawing.

Home Science: Course A—Cookery and Nutrition, Elements of Commerce, Housecraft and First Aid, Mothercraft and Children. Course B—Beauty Culture, Elements of Commerce, Laundry Work, Needlework and Dressmaking.

Motor Mechanics (Petroleum and Diesel): Fitting, Motor Mechanics, Vehicle Electrical Wiring, Welding, Related Drawing.

Radio, Television and Electronic Servicing: Principles of Electricity, Radio and Television, Related Drawing.

Sheetmetal Work Welding: Arc Welding, Gas Welding, Soldering (including production of articles from metal sheets), Related Drawing.

Woodworking and Building Construction: Bricklaying including concrete work, Building Construction, Wood Furniture and Timber, Related Drafting. (Ministry of Education 1979, 28–29)

The amount of time allocated to the study of each subject is outlined in Table 2.8.

Table 2.8. Secondary Vocational School Curriculum: Prescribed Subjects in Hours of Instruction per Week

Subjects Course:	Engr.	Agr.	Commerce	Home Sci.
Bahasa Malaysia	1.3	1.3	3.3	1.3
English Language	1.3	1.3	3.3	1.3
Choice of One: Islamic Religious Knowledge* *or* Pupil's Own Language	1.3	1.3	1.3	1.3
Mathematics†	2.0	2.0	3.3	2.0
Science	2.0	2.0	2.0	2.0
Social Studies (incl. Civics)	1.3	1.3	1.3	1.3
Vocational Skills‡	24.7	24.7	16.0	24.7
Minimum Hours per Week	33.9	33.9	30.5	33.9

SOURCE: Ministry of Education, "National System of Education in Malaysia," 1979, p. 63.

*Compulsory only for Moslem students.

†Syllabus relevant to the chosen vocational course is used.

‡Visits to places of employment and training in simple commercial practices relevant to the vocational course form an integral part of the course.

SIJIL PELAJARAN VOKESYNAL MALAYSIA/MALAYSIAN CERTIFICATE OF VOCATIONAL EDUCATION

Note: The terms Malaysian Certificate of Vocational Education (MCVE) and *Sijil Pelajaran Vokesynal Malaysia* (SPVM) are interchangeable and refer to the same examination administered at the end of the vocational track of Upper Secondary School Form V. The different terms are employed when referring to the same examination given in English (LCE) or *Bahasa Malaysia* (SRP). For purposes of this book, the *Bahasa Malaysian* term, *Sijil Pelajaran Vokesynal Malaysia* (SPVM), will be used as it reflects the current usage but encompasses any previous forms of the test given in any language.

The *Sijil Pelajaran Vokesynal Malaysia* (SPVM) full certificate is recognized as equivalent to the SPM for purposes of employment and for entrance to polytechnic schools and teacher training colleges but not for entrance to universities. The examination is external and standardized and is prepared and administered by the Ministry of Education Examination Syndicate. A student must sit for examinations in a minimum of four subjects.

The subject distribution for the SPVM is as follows:

Required Subjects

General Subjects: Compulsory Subjects—*Bahasa Malaysia* (Papers I and II) and English Language I or II. Choice of 2 or 3—Islamic Religious Knowledge, Mathematics, Science, Social Science.

Vocational Electives:

Agriculture: Compulsory Papers—Crop Production/Horticulture, Farm Machinery/Mechanization/Soil Management, Farm Management/Food Preservation/Livestock, Practical.

Air Conditioning and Refrigeration: Compulsory Papers—Air Conditioning and Refrigeration/Theory I, Air Conditioning and Refrigeration/Theory II, Practical, Air Conditioning and Refrigeration/Service and Installation (by coursework, not exam), Related Drafting.

Commerce: Choice of 1—Banking, Bookkeeping, *Bahasa Malaysia* or English Shorthand. Choice of *Bahasa Malaysia* or English in each of the following electives—Commercial Practice, Typewriting. Choice of Commercial English for Malay-medium or English-medium candidates.

Electrical Installation and Maintenance: Compulsory Papers—Electrical Installation including Practical and Related Drafting. Choice of 1—Electrical Winder, Industrial Control, Wireman and Linesman, all with Practicals.

Fitting and Machining: Compulsory Papers—General Fitting and Machining including Practical and Related Drafting. Choice of 1—Machining or Turning, both with Practicals.

Home Science: Course A (Compulsory Papers)—Business Studies; Cookery and Cottage Industry, Home Management, both with Planning Session and Practical; Home Nursing and Hygiene; Nutrition. Course B (Compulsory Papers)—Beauty Culture and Hairdressing, Laundry Work, both with Planning Session and Practical; Business Studies; Drafting, Dressmaking and Tailoring including Practical.

Motor Mechanics: Compulsory Papers—Basic Motor Mechanics including Practical and Related Drafting. Choice of 1—Motor Vehicle Electrical Work or Diesel Engine, both with Practicals.

Sheetmetal Work and Welding: Compulsory Papers—Sheetmetal Work, Welding, both with Practicals; Related Drafting.
Television and Electronic Servicing: Compulsory Papers—Basic Electricity and Electronics, Radio and Television Servicing, both with Practicals; Related Drafting.
Woodworking and Building Construction: Compulsory Papers—General Woodworking and Building Construction including Practical; Related Drafting. Choice of 1—Carpentry and Joinery or Masonry and Brickwork, both with Practicals. (Ministry of Education 1979, 69–74)

The grading scale for the SPVM, with the suggested U.S. equivalents approved by the National Council on the Evaluation of Foreign Educational Credentials, is as follows:

Grade	Remarks	Suggested U.S. Equivalents
1 and 2	Distinction	A
3 and 4	Credit	B
5 and 6	Credit	C
7 and 8	Pass	C–/D
9	Fail	F

As with the SPM, the SPVM certificates are awarded with an overall classification (Grade One, Two or Three), depending on the accomplishment of the student. The classifications are based on the grades received in particular courses and the combination of subjects. The conditions required to earn the different grades of certificates are as follows:

Grade One Certificate—Aggregate of not more than 18 on the best four subjects including at least one vocational subject with a minimum of Credit 5, Credit in *Bahasa Malaysia* and Math or Science, Pass in at least one other subject.

Grade Two Certificate—Aggregate of not more than 24 on the best four subjects including Credit in at least one vocational subject, Credit in Math or Science, Pass in *Bahasa Malaysia* and one other subject.

Grade Three Certificate—Pass in a vocational subject, Pass in *Bahasa Malaysia* and two other subjects.

Grade Four Certificate (not a full certificate)—At least one Pass in a vocational subject.

To earn a full SPVM certificate, a student must receive a Pass in the vocational courses, a Pass in *Bahasa Malaysia* and a Pass in two other subjects. Students who are not successful in earning the full certificate may receive statements indicating the grade in their vocational subject.

During the 1978 testing year, 5,346 school candidates sat for the SPVM. Of that number, 186 (3.5%) received Grade One Certificates while 527 (9.8%) and 1,496 (28%) received Grade Two and Grade Three Certificates, respectively. Also in 1978, 806 (15.1%) received Grade Four Certificates and 2,331 (43.6%) failed. These figures do not include any students who may have taken the examination as private candidates. (Ministry of Education 1979, 48)

Junior Science Colleges

Bumiputra (indigenous and other Malay) students from rural or underprivileged socioeconomic backgrounds who are identified on the *Peperiksaan Darjah Lima* (PDL) as having superior aptitude in science and mathematics may be selected to attend a *Sekolah Menengah Sains* (SMS)/Junior Science College (JSC). The Junior Science Colleges are residential schools which provide an enriched curriculum for students coming from environments where education may not be encouraged. The residential environment and well-equipped schools are designed to prepare their students for further study. Many students from these schools go directly overseas upon receipt of the SPM or to university matriculation programs. The SMS's are sponsored by the Ministry of Education and the Maktab Rendah Sains MARA are sponsored by the Majlis Amanah Ra'ayat (MARA) or Council of Trust for Indigenous People.

Selection procedures for entrance to JSC may change when the PDL is phased out in 1987. MARA announced in 1985 that it would discontinue acceptance in JSC Form I in favor of feeder schools it would develop and take students into JSC at Form IV, starting in 1988.

Malaysian Independent Chinese Secondary Schools

As noted earlier in the discussion of primary education, instruction in Standards One through Six may be taken in the student's first language. Chinese students may attend one of the approximately 1,000 Chinese-language national-type primary schools, which currently enroll about 600,000 Chinese students. After attending Standards One through Six at a national-type primary school, Chinese-speaking students may choose to continue in the national stream where instruction will be entirely in *Bahasa Malaysia* or opt at the Form I level to attend a private school of the Malaysian Independent Chinese Secondary School (MICSS) system.

There are sixty independent Chinese secondary schools that enroll more than 45,000 students. They are funded entirely by private resources from the Chinese community and are subject to the rules of operation which govern all licensed schools. Students in the national stream (Malay-medium schools) may join the MICSS at any time between the sixth and twelfth years of school. Entrance requirements to the MICSS vary. Some have specific entrance examinations and others take applicants on a first-come, first-served basis.

The basic curriculum in the private MICSS is patterned after that taught in the national (Malay-medium) schools and is supplemented with enrichment courses in Chinese art, culture and music. Students prepare for the national examinations (SRP and SPM) and/or for the MICSS Unified Examination (see below). Currently, the MICSS curriculum is mainly academic but some consideration is being given to developing a vocational curriculum.

The six years of secondary education offered are divided into two three-year segments: Junior Middle School I, II and III, and Senior Middle School I,

II and III. Promotion from year to year is controlled by each school and is not automatic. The language of instruction for most of the courses is Chinese, but *Bahasa Malaysia* and English are required subjects. Some classes are taught in both Chinese and English, and textbooks in English are used, particularly in the science subjects. Students wishing to sit for national examinations, such as the SRP or SPM, must develop proficiency in *Bahasa Malaysia*.

There are two major examinations during the six-year period. The first examination, called the Junior Middle Examination, is taken at the end of Junior Middle III (grade 9) and serves a purpose similar to the *Sijil Rendah Pelajaran* (SRP). Promotion to Senior Middle School is based on this examination. At the end of Senior Middle III (grade 12), MICSS students are required to take a leaving examination, the Malaysian Independent Chinese Secondary Schools Unified Examination (MICSSUE). The MICSSUE, sponsored by the Working Committee of the United Chinese Schools Committees' Association of Malaysia (UCSCAM) and the United Chinese School Teachers' Association of Malaysia (UCSTAM), has been offered annually since 1975 and has been used as the basis for admission to universities overseas. The results of the examination can be used to gain entrance to independent postsecondary vocational schools in Malaysia but cannot be used for admission to government-sponsored institutions (i.e., Malaysian universities, teacher training colleges, Tunku Abdul Rahman College, or any of the polytechnics). Students wishing to attend one of the latter must sit for the national examinations since government-sponsored institutions require the standard SPM or STPM examinations that are administered in *Bahasa Malaysia* by the Ministry of Education Examination Syndicate or Council. (See Chapter III for a discussion of the STPM exams.)

It is not uncommon for Chinese students to go abroad for further education if they have been successful on the MICSSUE and can afford to pay for their education. Among the countries whose universities have considered the MICSSUE as a basis for application or admission are Australia, Canada, India (medicine), New Zealand, the Republic of China (Taiwan), Singapore, the United States and the United Kingdom.

Twelve subjects are offered for examination on the MICSSUE. A student may sit for a maximum of ten examinations. See Document 2.4 for a sample MICSSUE certificate. Except for the language papers, all examinations are offered in both English and Chinese and students may answer in either language. The subjects offered are Advanced Mathematics, *Bahasa Malaysia*, Biology, Bookkeeping, Chemistry, Chinese Language, Commerce, Elementary Mathematics, English Language, Geography, History and Physics.

The grading scale for the MICSSUE, with suggested U.S. equivalents approved by the National Council on the Evaluation of Foreign Educational Credentials, is as follows:

Grade	Remarks	Suggested U.S. Equivalents
A1 and A2	Distinction	A
B3 and B4	Credit	B

B5 and B6	Credit	C
C7 and C8	Pass	C–/D
F9	Fail	F

The distribution of grades for selected 1983 examination results is shown in Table 2.9.

For a list of Malaysian Independent Chinese Secondary Schools, see Appendix A. Further information on these schools can be obtained by writing to the Higher Education Advisory Board, Merdeka University Berhad, 321–D, Off Jalan Tuanku Abdul Rahman, Kuala Lumpur 02–01, Malaysia.

PERSEKUTUAN PERSATUAN-PERSATUAN LEMBAGA PENGURUS SEKOLAH CHINA MALAYSIA
馬来西亞華校董事聯合會總會 A 11001
UNITED CHINESE SCHOOL COMMITTEES' ASSOCIATION OF MALAYSIA

馬來西亞華文獨立中學
統一考試証書

Bahasa China — Chinese Language
Bahasa Malaysia
Bahasa Inggeris — English Language
Ilmu Hisab Am — Elementary Mathematic
Ilmu Hisab Tinggi — Advanced Mathematics
Tawarikh — History
Ilmu Alam — Geography
Ilmu Sains — Biology
Ilmu Kimia — Chemistry
Ilmu Fizik — Physics
Ilmu Perdagangan — Commerce

一九八　年　月　日

2.4. Malaysian Independent Chinese Secondary School Unified Examination Certificate

Table 2.9. Selected MICSSUE Examination Results in Percentages, 1983

	English	Elem. Math	Add. Math	Geog.	Chem.	Physics
A1	4.93	4.80	11.25	2.20	2.43	2.52
A2	2.52	4.73	9.30	7.26	7.51	6.62
B3	3.90	5.94	7.09	5.38	7.30	3.47
B4	5.18	6.62	6.11	6.63	5.98	7.15
B5	7.85	8.93	5.31	8.79	8.62	7.57
B6	11.18	9.15	7.17	8.61	8.52	9.67
C7	8.38	8.74	9.92	15.64	15.92	12.93
C8	9.90	9.42	15.41	15.37	15.01	17.88
F9	46.15	41.68	28.43	30.12	28.70	32.18
Total Registered for Each Examination:						
	3,132	3,003	1,382	2,582	1,124	1,082

Source: Higher Education Advisory Board, Merdeka University Berhad, 1983.

Institutes of Agriculture

In addition to the degrees and diplomas in agriculture which can be earned at the universities or technical institutes, a secondary level *Sijil Pertanian* (Certificate of Agriculture) can be earned throughout Peninsular Malaysia at one of six Institutes of Agriculture sponsored by the Ministry of Agriculture. Two other Institutes of Agriculture, sponsored by the respective state governments, are located in Sabah and in Sarawak. The institutes were established to train technicians for the Ministry of Agriculture and other related departments. Each institute offers the same course of study that prepares Ministry employees for positions as extension workers, research assistants and farm development officers who work in farmers' organizations such as cooperatives. Approximately 240 students are enrolled in each institute.

The entrance requirement for the Institutes of Agriculture is the SRP with credits in *Bahasa Malaysia*, General Science and Mathematics plus a Pass in English. Lecturers generally hold Diplomas. The course grade includes classwork, field practical training and semester examinations.

The program lasts three years and involves practical application of coursework along with lectures. The first year curriculum includes instruction in Agricultural Engineering, Agronomy, Animal Science, Basic Sciences (Biology, Chemistry, Physics), Horticulture, Math and Soil Science. The second year includes Agricultural Extension, Agronomy, Economics, Farm Family Ecology or Agricultural Engineering, Horticulture, Plant Protection, Religious Training and Soil Science. The third year of study includes Administration, Agribusiness, Agricultural Engineering, Agricultural Extension, Religious Training, Rural Institutions and Social Ecology. Upon completion of the three-year course, students sit for/are awarded the *Sijil Pertanian*, which gives access to employment in agricultural fields.

Prior to 1985, the grading scale for the Institutes of Agriculture was: A = 80%–100%, B = 65%–79%, C = 50%–64%, D = 40%–49%, E (fail) = below 40%. Since 1985, the grading system has been: A+ = 90%–100%, A = 80%–89%, B+ = 70%–79%, B = 60%–69%, C = 50%–59%, F (fail) = below 50%. The certificate is awarded if the student passes all of the subjects and obtains at least a 60% average in practical field work.

Names and addresses of the institutes are listed in Appendix B. Correspondence regarding the institutes should be directed to the Director-General, Department of Agriculture, Jalan Mahameru, Kuala Lumpur, Malaysia.

Examinations and Examining Bodies

Two official Ministry of Education bodies are responsible for the examinations administered during the primary through pre-university years. The Examination Syndicate (Lembaga Peperiksaan) is responsible for examinations for Standards One through Six (grades 1–6) and Forms I through V (grades 7–11) while the Examination Council (Majlis Peperiksaan) administers the tests for Higher School or Upper and Lower Form VI (grades 12 and 13). The Examination Syndicate also conducts a variety of external examinations such as the *Peperiksaan Sijil Perdagangan Malaysia* (Malaysian Certificate of Commerce Examination) and overseas exams for the University of London, London Chamber of Commerce and Industry, Association of Certified Accountants, Institute of Cost and Management Accountants and the Association Board of the Royal School of Music (United Kingdom).

Prior to 1957, schools were conducted either as English schools or vernacular schools. There were no examining bodies as they are known today. Students attending English schools sat for the British Junior Cambridge School Certificate Examination at the end of Form IV and the British Senior Cambridge School Certificate Examination at the end of Form V. Both exams were administered by the University of Cambridge Local Examination Syndicate (UCLES). Students attending the vernacular schools were tested at the end of each year and on the basis of these examinations were either promoted, retained to repeat a year or asked to leave. At the end of Form V and Upper Form VI, examinations were administered by each State to certify or select students for further study. Students were awarded institutional school leaving certificates or certificates issued by the State.

Subsequent to 1955, an examination that met multiple needs was introduced at the end of Form V. In an effort to draw disparate systems together, a joint examination was introduced and developed in cooperation with UCLES. This exam, the School Certificate (SC)/Federation of Malaya Certificate (FMC)/General Certificate of Education (GCE), made it possible for students to earn the SC and the FMC in one sitting, provided all general conditions of the certificates were met and that both *Bahasa Malaysia* and English were passed.

If candidates passed only one language, the appropriate individual certificate was awarded. In the case of a candidate who failed to meet the general requirements or who failed in both languages, the GCE was awarded.

In 1962, the *Sijil Pelajaran Malaya*, a parallel and equivalent examination, was introduced and, except for examinations which tested other languages, was conducted entirely in *Bahasa Malaysia*. After the formation of Malaysia in 1964, the SC/FMC/GCE was replaced by the Malaysian Certificate of Education (MCE), an examination which can be equated to the British General Certificate of Education Ordinary Level exams and the *Sijil Pelajaran Malaya* was changed to the *Sijil Pelajaran Malaysia* (SPM). Beginning in 1970 as *Bahasa Malaysia* was phased in as the language of instruction in the local schools, the number of examinations administered in English began to diminish. In 1978, the function of the University of Cambridge Local Examination Syndicate (UCLES) was taken over by the local examination authority, the Malaysian Examination Syndicate.

In 1957, the Malayan Secondary School Entrance Examination (MSSEE), which was administered at the end of Standard Six in *Bahasa Malaysia*, Chinese and Tamil, was introduced. The MSSEE was eliminated in 1964. Promotion within the school system from grade to grade became automatic up through Form III (year nine). The *Peperiksaan Darjah Lima* (PDL) was designed to evaluate the progress of primary students and is still being used.

The Lower Certificate of Education (LCE), now known as the *Sijil Rendah Pelajaran* (SRP) and given in *Bahasa Malaysia*, was introduced in 1960. The purpose of the examination was to determine who should continue to Forms IV and V in upper secondary school. (Ministry of Education 1981, 3–6)

The advanced level examinations (Higher School Certificate, *Sijil Tinggi Persekolahan*, *Sijil Tinggi Persekolahan Malaysia*) administered at the end of Upper Form VI (Higher School) come under the supervision of the Examination Council (see Higher School in Chapter III). Both the Examination Council and the Examination Syndicate are under the Ministry of Education. While the two examining bodies are related, they function independently.

Chapter III

Pre-University Education

Pre-university education is assuming an increasingly major role in Malaysia. As the number of places in the Malaysian universities increases, the number of routes to the universities is also expanding. While Malaysian universities used to adhere to strict British-patterned entrance requirements based on the *Sijil Tinggi Persekolahan Malaysia* (STPM), formerly the *Sijil Tinggi Persekolahan* (STP) or the Higher School Certificate (HSC), they now consider *bumiputra* (indigenous) candidates who have prepared for the universities in different programs. As part of a concerted effort to improve the socioeconomic standing of the native Malay through higher education, the *bumiputra* are being given increased access to higher education, especially through nontraditional programs.

The three main programs from which a student can gain access to Malaysian universities are: 1) Higher School programs, two-year university preparatory courses that prepare students for the STPM and formerly prepared students for the STP, the HSC and General Certificate of Education Advanced Level (GCE A Level) exams; 2) one- and two-year matriculation programs, developed by several of the national universities; and 3) selected university and technical school diploma programs.

Higher School

Higher School is open to students of all ethnic groups. However, recently few *bumiputra* students have enrolled. Most *bumiputra* students are going directly to the United States or to other countries after the SPM or to one- or two-year university matriculation programs offered in local universities or are enrolling in U.S. freshman year programs offered in Malaysia (see Chapter VI for a discussion of the latter).

The most traditional route to higher education has been by way of the two-year pre-university preparation program in Lower and Upper Form VI (grades 12 and 13). A select number of students prepare for these examinations which usually consist of three Principal and two Subsidiary examinations and a General Paper (*Kertas Am*). A set syllabus of information is studied and, at the end of two years, students sit for the STPM.

Sijil Tinggi Persekolahan Malaysia/*Sijil Tinggi Persekolahan*/ Higher School Certificate

Note: Originally in Form VI, students prepared for the Cambridge Higher School Certificate. When *Bahasa Malaysia* became the language of instruction,

the Higher School Certificate (HSC) examination was administered in *Bahasa Malaysia* (Malay Language) and was called the *Sijil Tinggi Persekolahan* (STP). More recently, the examination has been called the *Sijil Tinggi Persekolahan Malaysia*, identifying it with the country in which it is administered. All of the above-mentioned examinations are equivalent in level and purpose. The syllabi followed for Principal examinations can be equated to the GCE A Level examinations. The name changes reflect the language in which the examinations are administered. The reference to STPM only in the text reflects current usage.

Until 1981, the Higher School examinations were administered by the University of Cambridge Local Examination Syndicate. Since 1982, the STPM has been administered by the Malaysian Examination Council, which is under the Ministry of Education but is separate from the Malaysian Examination Syndicate. The latter administers the *Peperiksaan Darjah Lima* (PDL)/*Peperiksaan Penilaian Darjah Lima* (PPDL) or Standard Five Assessment (SFA); the *Sijil Rendah Pelajaran* (SRP); or the *Sijil Pelajaran Malaysia* (SPM). (See Chapter II for more information.) The subjects which a student can study at the Higher School level are listed in Appendix C.

Grades for the STPM are based on both paper grades and subject grades. A paper is the individual subsection of an examination. Papers are not weighted equally; each paper is given a score from 1 (high) through 9 (low). Passing the right papers within the set of papers is important to the overall or subject grade. It is possible to fail one paper within the set of papers and still pass the subject. However, if the paper is one that is designated to carry more weight, the student must earn at least a grade of 7 or 8 (considered a "redeemable failure") in that paper in order to pass at the Principal Level.

The subject grade scale for the STPM, with the suggested U.S. equivalents approved by the National Council on the Evaluation of Foreign Educational Credentials, is as follows:

Grade	% Represented by Grade	Remarks	Suggested U.S. Equivalents
A & B	65%–100%	Pass	A
C	50%–64%	Pass	B
D			C
E	40%–49%	Pass	D
R	30%–39%	Partial Pass	F
Fail	–	Fail	F

Note: Pass grades are equivalent to a Pass at the Cambridge GCE Advanced Level. Partial Pass indicates failure at the Advanced Level but is equivalent to a Pass at the Subsidiary Level.

When sitting for the STPM examinations, the following conditions must be met:

A. Choice of Subjects: No candidate may offer in any one examination 1) more than five subjects, including the General Paper; 2) subjects with identical titles at more

than one level; 3) more than one of the alternatives in any subject; 4) any combination of subjects or papers forbidden by the subject syllabus.

B. Combination of Papers: Each candidate for the STPM must offer the General Paper and either at least three Principal subjects or two Principal subjects and two Subsidiary subjects.

There are a number of conditions a student must meet to earn a full STPM. Students must pass the General Paper (*Kertas Am*) and one of the following sets of examinations: 1) three Principal subjects, 2) two Principal subjects and two Subsidiary subjects, 3) two Principal subjects with a certain standard and one Subsidiary subject. The STPM may be awarded to a candidate who fails by a small margin in the General Paper but who satisfies the conditions stated in 1 or 2 above. (Ministry of Education 1979, 77) See Document 3.1 for a sample STPM.

Candidates who are not successful in meeting the above criteria for the STPM will be considered for the *Sijil Am Pelajaran Malaysia*, formerly the Malaysian **General** Certificate of Education, if one Principal or one Subsidiary subject is passed or a grade of R is earned on a Principal examination.

The results of the STPM are announced to the student first by means of a computerized examination result slip. This is all the student is given until the formal certificates are issued before the end of the calendar year in which the examination is taken. The individual result slips will not carry raw scores for the papers or subjects. Overall passing grades and performance level, as indicated in the grade scale above, will be noted. The results are printed in *Bahasa Malaysia* as follows:

Lulus Penuh = Full Pass
Lulus Sebahagian = Partial Pass
Gagal = Fail

The General Paper is reported only as Full Pass or Fail. A Pass on the General Paper is considered equivalent to a Pass at the Subsidiary Level. The results of the STPM examinations by subject can be seen in Tables 3.1, 3.2 and 3.3.

In 1986, 37,041 students will be offered places in Lower Form VI. This represents 36.8% of the 100,788 students who took the *Sijil Pelajaran Malaysia* examination. Of the total places, 20,006 will be in the Science stream while 17,035 will be in the Arts stream.

Inquiries to the Examination Council regarding the Malaysian Higher School Certificate may be addressed to: Malaysian Examination Council, c/o Ministry of Education, Bangunam Bank Pertanian, Leboh Pesar Besar, 10th Floor, Kuala Lumpur, Malaysia.

University Matriculation Programs

In an effort to meet the ethnic admissions targets in the universities (affirmative action quotas, see Chapter I), some Malaysian universities have devel-

MAJLIS PEPERIKSAAN MALAYSIA
(MALAYSIAN EXAMINATIONS COUNCIL)

SIJIL TINGGI PERSEKOLAHAN MALAYSIA
(MALAYSIA HIGHER SCHOOL CERTIFICATE)

Adalah disahkan bahawa
(This is to certify that

No. Kad Pengenalan
Identity Card No.

telah menduduki peperiksaan SIJIL TINGGI
has sat for the Malaysia Higher School

PERSEKOLAHAN MALAYSIA dan telah mencapai pangkat kelulusan seperti tercatat bagi
Certificate examinations and reached the grade of passes specified in each of the following

mata pelajaran yang tersebut di bawah:
subjects)

Angka Giliran: 906/1635
(Index No.)
SEK. MEN. (PEREMPUAN) SRT. BINTANG
KUALA LUMPUR

Tahun Peperiksaan: 1983
(Year of Examination)

Mata Pelajaran *(Subjects)*	Pangkat *(Grade)*
KERTAS AM	C (LULUS PENUH)
SEJARAH	D (LULUS PENUH)
GEUGRAFI	E (LULUS PENUH)
EKONOMI	B (LULUS SEBAHAGIAN)

I certify that this is a true copy of the original which has been produced before me.

Bil. Mata Pelajaran Lulus: 4
(No. of Subjects Passed)

YEAP GAIK EHOON
Principal
Bukit Bintang Girls' Secondary School
Kuala Lumpur

Pengerusi
(Chairman)
Majlis Peperiksaan Malaysia
(Malaysian Examinations Council)

Setiausaha Agung
(Secretary General)
Majlis Peperiksaan Malaysia
(Malaysian Examinations Council)

B 056648

45477/82

Sila lihat sebelah
(P.T.O.)

3.1. Sample *Sijil Tinggi Persekolahan Malaysia* (STPM)

Table 3.1. HSC/STP Results for School Candidates, Selected Years

Year/ Exam	Science			Arts		
	# Sitting for Exam	% Earning Full Cert.	% Earning GCE	# Sitting for Exam	% Earning Full Cert.	% Earning GCE
1970						
HSC	2,104	63.6	35.2	1,567	60.3	36.1
STP	279	7.6	82.2	794	13.4	86.6
1974						
HSC	2,800	65.8	33.5	1,896	55.3	44.3
STP	507	10.7	84.4	1,210	50.3	49.7
1978						
HSC	3,585	58.9	37.2	2,518	51.8	47.5
STP	960	4.2	89.3	3,792	26.1	73.5

SOURCE: Ministry of Education, "National System of Education in Malaysia," 1979, pp. 49–50.

Table 3.2. Selected STPM Results, 1982: Distribution of Grades by Subject

Subject	% Receiving Grade							# Taking Exam
	A	B	C	D	E	R	F	
General Paper	3.30	10.79	9.65	12.01	27.43	–	36.82	48,362
Language								
Arabic	3.29	11.97	7.39	13.97	27.46	27.00	8.92	852
B. Malaysia	0.81	4.59	5.05	6.53	26.50	39.74	16.78	37,099
Chinese	4.65	9.40	9.71	12.74	28.20	27.62	7.68	1,915
English	1.11	5.47	6.02	6.86	26.42	28.08	26.04	1,079
Tamil	3.63	14.63	9.07	14.12	28.11	24.09	6.35	772
Mathematics								
Math A	10.21	16.43	9.39	10.17	18.82	15.42	19.56	8,282
Further Math	8.45	15.14	10.95	11.60	22.94	16.75	14.17	1,242
Pure Math	0.00	5.21	4.59	9.81	19.61	24.18	36.60	153
Science								
Biology	2.19	7.21	4.67	9.87	25.73	32.91	17.42	3,789
Chemistry	2.68	9.04	8.11	11.41	23.78	27.63	17.35	5,740
Physics	1.70	5.37	5.49	7.86	23.79	33.78	22.12	5,519
Other								
Accounting	5.03	9.68	6.21	7.16	18.69	25.10	28.13	2,108
Art	4.33	10.25	7.54	9.61	28.29	30.34	9.64	6,420
Divinity	0.00	4.17	8.33	0.00	16.67	29.16	41.67	24
Economics	0.28	0.81	0.77	1.74	7.84	26.90	61.66	31,526
Geography	0.08	0.67	1.39	4.01	16.71	41.08	36.06	25,879

Subject	% Receiving Grade A	B	C	D	E	R	F	# Taking Exam
Geom. & Mech. Drawing	1.00	4.00	10.00	6.00	23.00	28.00	28.00	100
History	1.01	4.76	4.45	6.15	21.38	39.44	22.81	31,723
Islamic Law	4.84	12.74	9.43	14.65	23.56	24.84	9.94	785
Islamic Theology	6.18	20.07	15.06	15.83	22.01	12.36	8.49	259

SOURCE: Ministry of Education, Examination Council, *Laporan Tahunan 1982*, pp. 34–40.

Table 3.3. Selected STPM Results by Subject, 1982 and 1983

Subject	Total Candidates 1982	1983	% Prin. Pass 1982	1983	% Subsid. Pass 1982	1983	% Fail 1982	1983
General Paper	48,362	57,927	63.18	64.20	–	–	36.82	35.80
Language								
Arabic	852	1,273	64.08	60.57	27.00	29.85	8.92	9.58
B. Malaysia	37,099	45,321	43.48	43.56	39.74	39.69	16.78	16.75
Chinese	1,915	2,303	64.70	63.05	27.62	29.53	7.68	7.43
English	1,079	927	45.88	46.28	28.08	30.31	26.04	23.41
Tamil	771	1,022	69.56	69.37	24.56	25.24	6.35	5.38
Mathematics								
Math A	8,282	10,131	65.02	66.30	15.42	17.64	19.56	16.06
Further Math	1,242	1,868	69.08	71.04	16.75	15.69	14.17	13.28
Pure Math	153	178	39.22	38.76	24.18	28.65	36.60	32.58
Science								
Biology	3,789	4,106	49.67	48.78	33.00	35.29	17.42	15.93
Chemistry	5,740	7,095	55.02	55.31	27.63	29.03	17.35	15.66
Physics	5,519	6,882	44.21	43.48	33.67	35.72	23.12	20.81
Other								
Accounting	2,108	2,819	46.77	42.75	25.10	27.46	28.87	29.80
Art	6,420	7,657	60.02	62.45	30.34	27.62	9.64	9.93
Divinity	24	41	29.17	12.20	29.17	51.22	41.67	36.58
Economics	31,526	34,237	11.44	13.33	26.90	28.54	61.66	58.12
Geography	25,879	30,359	22.86	21.24	41.08	47.63	36.06	31.13
Geom. & Mech. Drawing	100	60	40.00	66.67	40.00	15.00	20.00	18.33
History	31,723	38,511	37.75	35.60	39.44	38.55	22.81	25.84
Islamic Law	785	1,052	65.22	66.83	24.84	24.05	9.94	9.13
Islamic Theology	259	559	79.15	63.69	12.36	23.43	8.49	12.88

SOURCE: Ministry of Education, Examination Council, *Laporan Tahunan 1983*, p. 14.

oped one- and two-year pre-university programs, called *matrikulasi* (matriculation) programs, designated to prepare *bumiputra* (indigenous Malay) students to enter the university. The programs vary in content and sometimes in regulation but generally follow a similar pattern.

Bumiputra students are selected for the *matrikulasi* (matriculation) programs after the results of the *Sijil Pelajaran Malaysia* (SPM) are announced (see Chapter II for more information on the SPM). Those who are not selected for direct entrance to scholarship programs overseas or for Form VI may be chosen for the one- or two-year university matriculation programs which are intensive courses designed to prepare students for the selected field of study. Preparation most often includes basic sciences and math but may also include other coursework. At the end of the one or two years (total of twelve or thirteen years), students sit for examinations which have been prepared by each individual university. Successful students may enter that university the following year. In selected circumstances, students may be allowed to repeat the matriculation program if they were unsuccessful in their first examinations. The results of the matriculation examinations are not usually available except to the university officials who administer the examinations; however, a certificate showing course completion may be issued.

No official certificate or standardized transcripts can be expected from the matriculation programs as they are administered locally at each university. The Registrar should be able to provide details on the grades and content of the courses. Table 3.4 is a sample matriculation program from the Universiti Kebangsaan Malaysia (UKM)/National University of Malaysia. See Document 3.2 for a sample matriculation certificate. Students who enroll in a matriculation program may attend only the university which sponsors the program. The preparation is not interchangeable among universities.

Table 3.4. Sample Matriculation Program Outline from UKM, 1984

Off Campus	Group A	Subjects
1 year programs	(Engineering, Medicine, Science)	Biology, Chemistry, English, Mathematics, Physics
	Group B	
	(Business, Economics or Science)	Chemistry, Economics, English, Mathematics, Physics
	Group C (1)	
	(Business Economics, Computer Science, Science)	Accounting, Chemistry or Physics, Economics, English, Mathematics
	Group C (2)	
	(Geography, Social Science, Science)	Chemistry, English, Geography, Mathematics, Physics

continued

On Campus 2 year programs	Law	Arabic, Economics, English, Islamic Law, Public Law, Social Studies

UNIVERSITI KEBANGSAAN MALAYSIA

3.2. **Universiti Kebangsaan Malaysia (UKM) Matriculation Certificate**

Diploma Programs

It is possible to gain entrance to particular university degree programs by way of university diploma programs. (For a discussion of university diploma pro-

grams, see Chapter V; for other diploma programs, see Chapter VI.) The Universiti Pertanian Malaysia (UPM)/University of Agriculture, Malaysia and the Universiti Teknologi Malaysia (UTM)/University of Technology, Malaysia accept students into three-year diploma programs. Successful students may be selected to continue with bachelor's degree studies and may receive some exemptions from the first year of the degree program. Diploma programs from other universities or technical institutes do not, at this time, give access to university degree programs except in rare circumstances. As the universities expand and more spaces are made available, this route to the university degree program by way of excellent performance in a diploma program may become more common.

The UTM accepts students only after the SPM. Form VI or matriculation courses are not required. Students may be accepted into one of three programs: 1) directly into a degree program, 2) into an integrated course where the diploma must be completed before selection to the degree course, or 3) into a terminal diploma course. (For details of the UTM program, see the Universiti Teknologi Malaysia/University of Technology, Malaysia profile in Chapter V.)

In unusual instances, a student who attends a Polytechnic for a certificate course may transfer to the second year of a diploma course at UTM and UPM. In turn, if successful, the new diploma holder may be selected to complete the bachelor's degree course. While this is not a common occurrence, it is possible and may be an indication that transferring from one program to another may become a more acceptable practice in the future.

Chapter IV

Teacher Training

Teacher training programs for primary school (Standards One to Six) and lower secondary school (Forms I to III) are conducted in government-sponsored Teacher Training Colleges (TTC), located throughout Malaysia. Upper secondary (Forms IV and V) and Higher School (Upper and Lower Form VI) require teachers to have university degrees and postgraduate Diplomas in Education.

Teacher Training Colleges

Planning for the training of primary and lower secondary school teachers is done by the Teacher Education Division which is headed by a Director and falls under the Ministry of Education. There are seven units in the Division: Administration and Coordination, Curriculum, Examination and Evaluation, Planning and Development, Recruitment and Placement, Student Affairs and Welfare, and Training and Staff Development.

As the system of teacher education in Malaysia has been nationalized, the goals and objectives have continuously been revised and refined to shape a national ideology. The goals of the Teacher Education Division reflect some of that effort: a) to train primary, secondary, vocational and technical school teachers of high caliber who are motivated to build a unified democratic Malaysian nation; to foster national spirit; to meet Malaysia's manpower needs by developing human resources and to encourage aesthetic, moral, physical and spiritual development; b) to improve the skills and efficiency of teachers and lecturers and to update their knowledge in academic and professional areas. (Ministry of Education 1983, 2)

History, 1957 to Present

Teacher training has developed quite rapidly since Malaysia became an independent nation. While the history of some Teacher Training Colleges can be traced to 1878, attempts to develop a standardized, coordinated training program date only to independence. Details of the history of teacher training and a review of the two-year certificate course in effect until 1981 can be found in the 1979 Joint Committee on Workshops' report, *The Admission and Placement of Students from Hong Kong, Malaysia, Philippines, Singapore*, available from the National Association for Foreign Student Affairs (NAFSA), 1860 19th Street, N.W., Washington, D.C. 20009.

Not satisfied with the conceptual framework of education left from the British colonial administration, which was the foundation for teacher training in the pre-independence period, Malaysian educators began to develop their own system. The first elected government of Malaysia established the national system of education and set minimum standards for teacher qualifications in all government-assisted schools. At that time, the standards were as follows:

1. To teach in primary school, applicants had to hold the *Sijil Rendah Pelajaran* (SRP) and complete a three-year program of teacher training. Those who held the *Sijil Pelajaran Malaysia* (SPM) had to complete a two-year program of teacher training. Programs in teacher training colleges were offered in the four languages (*Bahasa Malaysia*, Chinese, English and Tamil) used in primary schools.
2. To teach in secondary school, candidates had to hold the SPM and complete a two-year fulltime course in a residential training center.

In an effort to prepare enough teachers for the teaching force, two training centers (at Kirkby and at Brinsford Lodge College) were established in England but administered by Malaysian officials. The centers were closed in 1962 and 1964, respectively. Training teachers in a setting so removed from the social and cultural environment of the people they were intended to teach was deemed inappropriate and an extra expense by the Education Review Committee.

During the next two decades, twenty-seven two-year Teacher Training Colleges (TTC) were established to prepare teachers for Standards One through Six and Forms I through III. (See Appendix D for a list of the TTCs.) Twenty of the colleges are in Peninsular Malaysia and seven are in Sabah and Sarawak. The colleges are semi-residential or nonresidential. Five new colleges will be built in the future.

From 1973 to 1980, the curriculum for the TTCs was taught over a two-year period. In 1981, the two-year course followed by teacher trainees, which began in January each year, was redistributed over a three-year period. No changes were made in content, and minor changes were made in the distribution of time spent on lectures, but more time was allowed for the trainees to assimilate the body of knowledge. From 1981 through 1984, the training program was structured as follows:

Part I
Year 1—Three equal terms (10 months total) of classroom instruction.
Year 2—One term (3 months) of classroom instruction followed by Part I Examination.

Part II
Year 2 (continued)—Six weeks of practical experience (classroom observation and practice teaching) followed by two terms of classroom instruction (11 months total for Year 2).
Year 3—One term of classroom instruction followed by one term of practice teaching, one term of classroom instruction (10 months total for Year 3), and the Part II Examination.

Beginning in January 1985, each year was broken into two semesters of twenty weeks each. The three-year program consisted of six semesters which

included one full semester of off-campus practice teaching. The Part I and Part II Examinations were replaced by end-of-year semester examinations and evaluations of coursework in each subject.

The Ministry of Education is continually reviewing the semester system. In January 1986, the training program was reduced to five semesters with four semesters of instruction and one semester of practice teaching. The *Sijil Guru* (Teaching Certificate) is awarded at the conclusion of the training. See Document 4.1 for a sample teaching certificate.

KEMENTERIAN PELAJARAN MALAYSIA

SIJIL GURU

Dengan ini di-akuï bahawa

telah tamat

LATEHAN PERGURUAN

di- PUSAT SEKOLAH MENENGAH LANJUTAN, SEREMBAN, N.S.

pada tahun 1965

dengan menyempurnakan sharat² latehan serta lulus dalam Pepereksaan Latehan Perguruan

CERTIFIED TRUE COPY

Assistant Secretary (Training)
Scholarship Division
Ministry of Education
Malaysia.

Pengarah Latehan Guru

4.1. Teacher Training Certificate

Faculty

Faculty of the Teacher Training Colleges are expected to hold a bachelor's degree plus the Diploma in Education from a university and have five years

of teaching experience. Where shortages of personnel with these qualifications exist, individuals with the TTC Certificate plus one year of specialist training and ten years of experience may be employed to teach primary school trainees. Graduate teachers (holders of bachelor's degrees) with three years of teaching experience may also qualify. Currently at least 70% of the faculty of the Teacher Training Colleges hold at least a bachelor's degree.

Entrance Qualifications

To apply to a TTC, applicants are expected to meet the minimum general guidelines listed below, although because of a shortage of teachers in certain subjects, other qualifications may be considered. Candidates must not be more than twenty-five years of age if they hold the *Sijil Pelajaran Malaysia* (SPM), formerly the Malaysian Certificate of Education (MCE), or the *Sijil Pelajaran Vokesynal Malaysia* (SPVM), formerly the Malaysian Certificate of Vocational Education (MCVE). Holders of the SPM or SPVM must have a Credit in *Bahasa Malaysia* (Malay Language) and at least three other Credits in subjects relevant to the course to which the candidate has applied. All applicants for primary teaching must have at least a Pass in mathematics. In addition, the candidates are expected to pass the oral examination in *Bahasa Malaysia* at the SPM level and be able to speak the language fluently.

Some candidates admitted to the TTC from Sabah and Sarawak may not have met the general entrance requirements. Candidates are allowed to proceed on the condition that SPM exams will be repeated and that the entrance requirements will have been met by the time of appointment to the teaching force.

Candidates who hold the *Sijil Tinggi Persekolahan Malaysia* (STPM), formerly the *Sijil Tinggi Persekolahan* (STP) or Higher School Certificate (HSC), must not be more than twenty-seven years of age. Holders of the STPM will take the same course as the SPM holders but will be placed on a higher salary scale at the completion of training. No credit or exemptions from coursework are given in the training program to STPM holders for courses completed at the advanced level. Roughly 10% of the candidates for teacher training hold the STPM.

In 1984, the Teacher Education Division screened about 50,000 applications and selected 30,000 to sit for the entrance qualifying test. After the examination, 12,000 were invited for personal interviews and, of these, 6,000 were selected for entrance to Teacher Training Colleges.

Teacher Training College Curriculum

The standard curriculum for Teacher Training Colleges in Malaysia is divided into two major programs: one for primary school candidates who will teach Standards One through Six (Early and Middle Childhood Education) and the

other for lower secondary school applicants who will teach in Forms I through III (Early Adolescent Education). The training for specialists will be addressed later in this chapter.

The standard pre-service curriculum, which was divided into five parts, now consists of four parts. Table 4.1 shows the three-year teacher training curriculum in effect through December 1985; Table 4.2 shows the two and one-half year teacher training curriculum effective as of January 1986. Both tables indicate the number of hours of instruction in each subject.

Part 1. Core Courses—A common set of courses required of all candidates regardless of entrance requirements and the level at which the student intends to teach.

Part 2. Specialization—Trainees are required to have an area of specialization in which they wish to teach. Trainees for primary school teaching may select from Chinese Studies, English Studies (including TESL), Islamic Studies, Malay Studies, Tamil Studies or Music. In addition, candidates are required to take pedagogy courses in Man and Environment (an integrated subject which includes elements of Civics, Health, Science, and Social Studies) and in Mathematics. Students take an introductory course in each elective (Art Education, Home Economics, Music and Physical Education) area during the first two semesters and specialize in one of the three during the last two semesters.

Trainees for lower secondary school teaching are required to take single- or double-subject specializations based on their entry qualifications. The following specializations are offered: Agricultural Science, Art Education, Chinese Studies and Geography, Commerce, English Studies, History, Home Science, Industrial Arts, Islamic Studies, Malay Studies and Art Education (or Geography or History), Physical and Health Education, Science and Mathematics. (See Tables 4.1 and 4.2 for the hours spent in class.) A course, the New Primary School Curriculum, is offered to selected lower secondary school trainees to familiarize them with all aspects of the primary curriculum and thus give them more flexibility in placement within the schools at the end of their training.

Part 3. School Subjects or Self-Enrichment Courses—Trainees for Forms I-III (lower secondary) teaching must take self-enrichment courses that will complement the teacher training program and balance the education of those students who will specialize in one subject area. Self-enrichment courses are offered in art education, civics, mathematics, music and science.

Part 4. Co-Curricular Activities—Trainees are required to participate in co-curricular activities; they must become knowledgeable about and develop competence in one activity in each of three different areas so that they can assist with the organization of activities in the school setting. Activities fall into three different categories: sports and games (e.g., fencing, gymnastics, rugby, kickball, swimming, tennis); clubs and societies (based on subject areas, e.g., better living, culture, languages, math, science); uniformed activities (e.g., Guides, Islamic Women's Support Group, brass bands).

Part 5. Student Teaching—Prior to the initiation of the semester system in January 1985, the student teaching experience was divided into two parts: six weeks during the second year of the program and twelve weeks during the third year. Since the installation of the semester system, teacher trainees have been required to complete an eighteen-week block of practice teaching in the fifth semester. Trainees also have an opportunity to teach at the College in small class sessions to practice their basic teaching skills.

Table 4.1. Teacher Training Curriculum, 1981–1985*

Course	Primary (Standards One to Six)	Lower Secondary (Forms I to III)
	Hours of Instruction over 3 Years	
Core Courses (All Required)		
B. Malaysia (Malay Language)	180	180
Education	315	315
Educational Technology	90	90
English Language	180	180
Health Education	45	45
Islamic Civilization	45	45
Islam. Relig. Ed. (for Moslems) *or* Moral Ed. (for non-Moslems)	114	114
Physical Education	135	135
School Subject or Enrichment Course (All Required)		
Art Education	90	90
Civics	–	45
Home Economics	45	–
Mathematics	135	–
Mathematics & Science	–	45
Music	90	–
Science	90	–
Social Studies (incl. Civics)	159	–
Specialization (Select One)†		
Agr. Sci. (450) & Sci. (180)	–	630
Chin. Studies (315) with Geog. (315)	–	630
Commerce	–	810
English Studies	315	–
English Studies/TESL (315)	–	–
with Geography (315)	–	630
with History (315)	–	630
with Mathematics (315)	–	630
Home Science	–	630
Industrial Arts	–	810
Islamic Studies	720	720
Malay Studies (315)	315	–
with Art Education (315)	–	630
with Geography (315)	–	630
with History (315)	–	630
with Mathematics (315)	–	630

Course	Primary (Standards One to Six)	Lower Secondary (Forms I to III)
	Hours of Instruction over 3 Years	
Math (335) & Sci. (340)	–	675
Music	360	–
Phys. Ed. (315) & Health Ed. (315)	–	630
Tamil Studies	315	–
Totals (depending on option)	2,028 to 2,433	2,004 to 2,184

SOURCE: Information provided by the Teacher Education Division, Ministry of Education.

*Full 3-year curriculum includes co-curricular activities and Practice Teaching.

†Where 2 subjects are covered in the specialization, the breakout of hours is shown in parentheses.

Table 4.2. Teacher Training Curriculum from January 1986*

Course	Primary (Standards One to Six)	Lower Secondary (Forms I to III)
	Hours of Instruction over 2.5 Years	
Core Courses (All Required)		
B. Malaysia (Malay Language)	152	152
Citizenship Education	38	38
Educational Foundations Ed. in Malaysia (38) Ed. Psych. (95) Pedagogy (133)	266	266
Educational Technology	76	76
English Language	152	152
Islamic Civilization	38	38
Islam. Relig. Ed. (for Moslems) *or* Moral Ed. (for non-Moslems)	76	76
School Subject and Specialization		
Art Education	38	38
Health Education	–	38
Home Economics	38	38
New Primary School Curriculum†	–	114
Man & Environment (incl. Civics, Health, Sci., Soc. Studies)	171	–
Mathematics	152	–
Music	38	38

continued

Course	Primary (Standards One to Six)	Lower Secondary (Forms I to III)
	Hours of Instruction over 3 Years	
Physical Education	38	76
Subject Specialization	228	494‡
Elective (Art Ed., Home Econ., Music or Phys. Ed.)	114	–
Totals	1,615	1,634

Source: Information received from the Teacher Education Division, Ministry of Education.

*Curriculum includes co-curricular activities and Practice Teaching.

†If a trainee is required to take the New Primary School Curriculum course, the hours are added to the school subject specialization.

‡When lower secondary school trainees take a double specialization, such as Malay Studies and Geography, the time allocation is divided equally between subjects (247 hours each).

Specialist Training (In-Service Programs)

In addition to the standard curriculum for all teachers, there are training programs for specialists. The courses vary in length according to the subject taught, but are, for the most part, one year in length. Trained teachers holding the *Sijil Guru*, a two- or three-year certificate from a Teacher Training College, with a minimum of five years of teaching service may be selected to participate in a course offered at one of the following four Specialist Teacher Training Colleges:

Language Institute, Kuala Lumpur: Teaching *Bahasa Malaysia*, Teaching English as a Second Language.

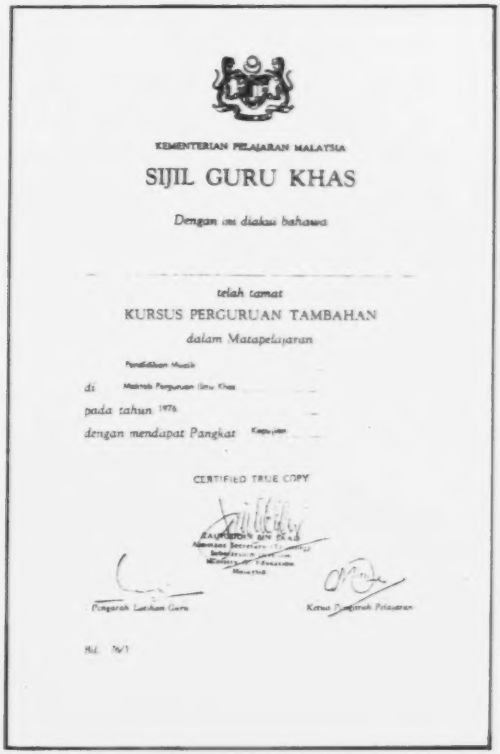
Specialist Teachers' Training Institute, Kuala Lumpur: Art and Craft, Education for the Blind, Education for the Deaf, Educational Technology, Guidance and Counseling, Library Science, Music, Physical Education, Remedial Education.

Technical Teachers' Training College, Kuala Lumpur: Building Construction, Electrical Installation and Maintenance, Machine Shop Practice, Motor Mechanics, Radio/Television and Electronics, Refrigeration and Air Conditioning, Welding and Sheetmetal.

Temenggong Ibrahim Teachers' College, Johor Bahru: Agricultural Science, Health Education, Home Science, Physical Education.

The *Sijil Guru*_____ /Certificate of Teaching_____ is awarded to those successfully completing the course. See Document 4.2 for a sample specialist teaching certificate.

There are two specialist courses of six-months' duration in Remedial Education and Guidance and Counseling. The Remedial Education program is aimed at primary teachers. Trainees can begin offering remedial classes after the first two-month training period. With this training, the pre-service teacher can get practical experience as well as supervision during the practical training period. The Guidance and Counseling Specialist program is aimed at secondary school teachers. Teachers are selected for the course which is offered at



KEMENTERIAN PELAJARAN MALAYSIA

SIJIL GURU KHAS

Dengan ini diakui bahawa

telah tamat

KURSUS PERGURUAN TAMBAHAN

dalam Matapelajaran

Pendidikan Muzik

di Maktab Perguruan Ilmu Khas

pada tahun 1976

dengan mendapat Pangkat Kepujian

CERTIFIED TRUE COPY

Pengarah Latihan Guru

Ketua Pengarah Pelajaran

Bil. 76/1

4.2. Specialist Teacher Training Certificate (Music)

the Specialist Teachers' Training Institute in Kuala Lumpur and the Temenggong Ibrahim Teachers' Training College in Johor Bahru.

Temporary Teaching Credentials

Because of this shortage of teachers in Malaysia, particularly in the states of Sabah and Sarawak, some teacher training candidates who meet the basic academic entrance requirements are allowed to begin teaching duties without the benefit of the teacher training course. Temporary teachers must, however, attend the training program at specified centers during school vacations until the course is completed (usually three years of attendance during vacations while teaching fulltime plus one year of fulltime study) at one of the Teacher Training Colleges.

Prior to February 1, 1982, holders of temporary teaching credentials had to have at least three credits on the SPM or SPVM including a credit in *Bahasa Malaysia* to qualify for part-time training. In Sabah and Sarawak, temporary

teachers were required to hold either one credit in *Bahasa Malaysia* or one credit in another subject. Subsequent to that date, these teachers had to have four credits. In Sabah and Sarawak, the requirement was changed to two credits, one of which was in *Bahasa Malaysia*, or two credits in other subjects and a Pass in *Bahasa Malaysia*. Students in this program are exempted from the observation or practical training segments of the course because these segments are completed during the fulltime teaching service.

During 1985, 13,200 of the 92,200 primary school teachers and 2,300 graduate teachers in upper secondary and Form VI were teaching without full credentials. The shortage of teachers is likely to continue for some time to come. Current projections indicate that 26,000 additional teachers will be needed in the teaching force by the year 1990. This quota of fully trained teachers cannot be met by the current output of the twenty-seven existing colleges.

Grading Scale and Examinations

The grade scale for the Teacher Training Colleges, beginning in January 1986, is as follows: A (80%–100%) = 5.0, B+ (75%–79%) = 4.5, B (70%–74%) = 4.0, C+ (65%–69%) = 3.5, C (60%–64%) = 3.0, D+ (55%–59%) = 2.5, D (50%–54%) = 2.0, E (30%–49%) = 1.0, F (0–29%) = 0. A grade of D (50% or 2.0) is the lowest passing mark on this scale. Courses are weighted according to the number of hours per week of lecture for each semester where one credit is equal to one hour of lecture throughout the semester. Students must pass all examinations except those in the enrichment subjects (art education, music, physical education) and in English Language in each of the five semesters.

Teacher trainees are evaluated in a number of different ways. Coursework is assessed continuously and grades are given for each course. The grade scale up to December 1985 was as follows: A (75%–100%) = 5, B (60%–74%) = 4, C (40%–59%) = 3, D (30%–39%) = 2, E (0–29%) = 1. The lowest passing grade was C (40%) or 3. Courses were weighted with the greatest importance being given to the option or major subject, the next greatest weight to Education courses, followed by *Bahasa Malaysia*, Co-curricular Activities and then English and all other subjects. Students had to pass all examinations in the following subjects (referred to as Group I subjects): Option subject, *Bahasa Malaysia*, Co-Curricular Activities, Education, Industrial Training (trade teacher candidates only), Mathematics (for primary school candidates) and Practice Teaching. From the following subjects (referred to as Group II subjects), primary teacher candidates had to pass five out of seven subjects while secondary teacher candidates had to pass three out of five: Art, Basic Health and Physical Education, Civics, Educational Technology, English, Home Science, Music (primary only), Religious or Moral Education, and Social Studies (primary only).

For the period between 1981 and 1984, when the course was organized into three periods per year for three years, trainees were given an examination at the end of Part I or the fourth term (first term of the second year). The Part I Examination was established at the central level in the Teacher Education Division of the Ministry of Education but was administered by each college.

If the results of this examination plus the continuous coursework assessment (which were weighted equally) were unsatisfactory, trainees with a grade point of 2.70 to 2.99 (see scale above) had to repeat individual subjects while those with a grade point of 2.20 to 2.69 had to repeat the whole course, retake the examinations and pass all courses to be allowed to continue. Candidates below 2.20 were dropped. Approximately 4% of the students failed the Part I Examination.

During this same time period, there were five terms to Part II of the training course. After the six-week observation and practice teaching period which followed Part I, the trainees took three terms of coursework, did twelve weeks of practice teaching and one more term of coursework. At the end of Part II, another examination was administered. Trainees had to successfully pass all examinations in Group I subjects without repeating any exam. If a Group II subject was failed, the trainee had to wait a year to repeat the examination. The final Part II Examination, set by the central Teacher Education Division of the Ministry of Education, was given in five subjects and was graded as follows with the estimated distribution indicated in parentheses:

Distinction (3%)—Pass in all subjects in one sitting with a minimum grade of B in Practice Teaching and the Option Subject and an average of 4.20 or better.
Credit (50%)—Minimum grade of B in Practice Teaching and the Option Subject with an average of 3.60 to 4.19.
Pass (44%)—With an average of 3.00 to 3.59.
Fail (3%).

To receive a Distinction on the *Sijil Guru* (Teaching Certificate), a trainee has to earn three Distinctions and two Credits on the examinations plus a Credit in Practice Teaching and a Credit in the major subject. While there was no particular reward, such as increased salary or rank, for earning a Distinction, there was an increased likelihood that a trainee with Distinction would be given further training or consideration for scholarships.

Students who fail the examinations or any part of the training program are allowed to sit for supplementary examinations in the subjects failed or to repeat courses. If the required grade point average in coursework and Practice Teaching of C or 3.0 is not achieved, the student is asked to cease training.

Grading practices remained the same through December 1985 although the calendar changed to a semester system. The Part I Examination was administered at the end of three semesters or in the middle of the second year. The Part II Examination was administered at the end of the third year.

Upper Secondary and Pre-University Teacher Training

Those wishing to teach in Upper Secondary (Forms IV and V) or Pre-University (Form VI) must hold the bachelor's degree and a one-year post-graduate Diploma in Education. (See Diploma in Education, Chapter V.) The Diploma in Education at the Universiti Malaya (UM)/University of Malaya, for example, consists of thirteen units of coursework, six units of Practice Teaching and one unit in Physical Education and Co-Curricular Activities. Each unit is made

up of twenty hours of lecture or forty hours of tutorials or practicals. A course may consist of a combination of the three.

The thirteen units of coursework include three units of Foundations of Education (Psychological Studies in Education, Pedagogical Studies in Education and Education in Malaysia), four units of educational electives (including a one unit course in Sociology), six units of Methodology of Teaching (including two subject method courses in one or more of the following areas: art, health education, language education, music, science education, and social science education).

An area of specialization within the Diploma of Education is Teaching English as a Second Language (TESL). At UM, the course requires the same combination of units as the other diplomas but the coursework consists of three units of Foundations of Education (as above), four units of TESL elective courses and six units of Methodology of Teaching (four units of Methodology of Teaching English as a Second Language which includes Teaching of Grammar, English for Special Purposes, Reading, Spoken English, and Writing, and two units of one other subject-method course, as listed above).

The Diploma in Education is measured by a two-hour written examination in each course in Foundations of Education, examinations or assignments in the elective courses and physical education and co-curricular activities and assessment of Practice Teaching.

Continuing Education for School Personnel

In-service and continuing education courses are offered through the Institut Pengurusan Pendidikan Negara (IPPN)/National Institute of Educational Management. IPPN originally operated as the Ministry of Education Staff Training Institute (MESTI), which started as a unit in 1979 and offered its first course in April 1980. MESTI became the IPPN in 1984.

These required courses are designed by the professional staff of the unit in response to professional needs. They may take the form of workshops or seminars, may last from one to eight weeks and are directed to all levels of school personnel (teachers and administrators, including Directors of Education in the State Departments of Education, Head Masters, Federal School Inspectors, School Clerks, Ministry of Education staff and officials of the Ministry of Health and MARA). School personnel are notified of a course and each state is allocated a number of places in the course. Teachers or administrative personnel are selected by the Department of Education of each state. School personnel must attend the designated course and must report the course results, graded on a scale of A, B, C, D, F. Certificates are awarded for the courses with a classification of Distinction, Credit or Pass. Syllabi can be obtained by writing to IPPN, Sri Layang, Genting Highlands, Bentong, Malaysia.

IPPN hopes eventually to offer a Diploma in Educational Management, possibly in connection with the University of Malaya. The IPPN moved to Genting in 1985 to a new residential facility for 400, planned specifically for in-service training. The facility will house a residential staff of eighty-five.

Chapter V

University Education

Until the twentieth century, no university-level institutions existed in Malaysia. The first higher education institution in the region was the Straits Settlements and Federated Malay States Government Medical School established in Singapore in 1905. In 1912, the school was renamed King Edward VII Medical School, and its license in medicine and surgery was recognized by the General Medical Council of Great Britain. The name was again changed in 1921 to The King Edward VII College of Medicine. The second university-level institution in Malaya was Raffles College which was established in 1929 to commemorate the founding of Singapore. In 1949, these two institutions merged to form the University of Malaya in Singapore.

In 1957, plans were made to establish a campus of the University of Malaya in Kuala Lumpur, and in 1959 an autonomous division of the University was established, equal in status to the institution in Singapore. The new campus grew rapidly and became an autonomous national university of the Federation of Malaya in 1962. In 1965, when the Federation of Malaya split into two countries, Malaysia and Singapore, the University of Malaya in Kuala Lumpur retained the name of the original university and the original division in Singapore changed its name to the University of Singapore (now the National University of Singapore).

There are now seven universities in Malaysia. Six of them are fully sponsored by the government of Malaysia and one (the Universiti Islam Antarabangsa or International Islamic University) is cooperatively funded by the government of Malaysia and several other countries. Several of the six new universities in Malaysia began decades ago as non-university institutions and have, over the years, grown to full university status. The Universiti Malaya (UM)/University of Malaya is followed chronologically by the six other universities: 1969, Universiti Sains Malaysia (USM)/University of Science, Malaysia; 1970, Universiti Kabangsaan Malaysia (UKM)/National University of Malaysia; 1971, Universiti Pertanian Malaysia (UPM)/University of Agriculture, Malaysia; 1972, Universiti Teknologi Malaysia (UTM)/University of Technology, Malaysia; 1983, Universiti Islam Antarabangsa (UIA)/International Islamic University; 1983, Universiti Utara Malaysia (UUM)/Northern University of Malaysia. For more information on the history of each university, see the individual school profiles outlined later in this chapter.

Enrollment in the universities has grown very rapidly in the past fifteen years. Even though the number of university spaces has increased, the persons meeting the minimum entrance qualifications outnumber the spaces available.

The enrollment patterns are as follows:

University	Enrollment			
	1970	1975	1981	1984
Universiti Kebangsaan Malaysia	192	2,502	6,715	7,883
Universiti Malaya	7,777	8,534	9,309	9,004
Universiti Pertanian Malaysia	585	2,553	4,131	7,244
Universiti Sains Malaysia	271	2,839	4,158	5,123
Universiti Teknologi Malaysia	692	2,172	4,892	6,596
Universiti Utara Malaysia	–	–	–	–
Universiti Islam Antarabangsa	–	–	–	268
Total	9,517	18,600	29,205	36,118

In addition to those enrolled in Malaysia, a large number of students are enrolled in tertiary-level institutions in other countries, specifically Australia, Canada, the United Kingdom and the United States. All together, there are as many students receiving higher education outside as there are inside the country.

Governance

The legal basis under which the universities in Malaysia operate was established in the Universities and University Colleges Act of 1971 (amended in 1975). The establishment of new universities must be approved by the constitutional monarch (by title, the *Yang di-Pertuan Agong*), and any new university-level institution that is approved must conform to a model constitution put forth in the Act. The model constitution provides guidelines for the internal government of the institution and is similar to that of British universities.

The principal leader of the university is the Chancellor, who is appointed by the constitutional monarch of Malaysia for a term of seven years. The chief executive and principal academic officer is the Vice-Chancellor, whose term is variable and who is appointed by the constitutional monarch on advice from the Minister of Education and with the recommendation of the University Council. The schools or faculties within each university are headed by Deans appointed by the Vice-Chancellor for renewable two-year terms.

The universities all have three governing bodies: a court, a council and a senate. The Court is the formal legislative body and meets once a year to receive the annual report of the university from the Vice-Chancellor and the report of the audited accounts and new statutes enacted during the year. The Council, which meets monthly, is the executive body of the university that rules on all matters of the university except academic affairs. The Senate of the university meets once a month to consider the academic affairs of the institution. It is chaired by the Vice-Chancellor and comprises the Deans of Faculties, Institutes or Schools; Directors of Centers; Heads of Departments

or Chairmen of Divisions and academic representatives as members. For further details on the universities' main governing bodies and other governance groups, refer to the *Commonwealth Universities Yearbook 1984*.

A 1975 amendment to the Universities and University Colleges Act of 1971 provided for more personnel from government departments to serve as members of the university governing bodies. This was done to insure that the universities were conforming to national policies and to coordinate decisions of the universities. Given government representation on the main decision-making body of the university and given the fact that the Ministry of Education controls the allocation of up to 95% of the funding for the universities, it is difficult for the universities to maintain any serious degree of administrative autonomy although they are allowed to pursue their own academic matters as long as national objectives are not contradicted.

Funding

The major source of funds for the six Malaysian national universities is the government budget. The Universities and University Colleges Act of 1971 provides for parliament to make grants-in-aid to the universities for capital development as well as for annual operating expenses. Annual income from fees, investments, housing and miscellaneous items usually does not exceed 15% of the annual budgets of the universities. The national budget provides, in some cases, up to 95% of the needed funds (*Commonwealth Universities Yearbook 1984*, 1,886). The Universiti Islam Antarabangsa/International Islamic University is funded predominantly by the Malaysian government but receives funds as well from the governments of other Islamic nations.

Faculty

University faculty are hired in the categories listed below. A master's degree in the relevant discipline is the minimum requirement for appointment as a lecturer; however, the universities do employ teachers with other qualifications to teach in speciality areas such as languages (*Bahasa Malaysia* and English).

Professors: Receive tenure on appointment and teach until they are fifty-five with possible extensions to the age of sixty; women have mandatory retirement at age fifty.

Associate Professors: Receive a three-year contract and then a contract to age of retirement.

Readers: Teach and do research (may be recruited locally or from abroad).

Lecturers and Assistant Lecturers: Receive a three-year contract and are then considered for promotion to the next level in the faculty track.

Tutors: Assist with teaching while reading for higher degrees; receive a one-year or two-year appointment with one-year extensions and are recruited locally. (Higbee and Winters 1979, 66)

Faculty who are recruited from overseas are given short-term contracts or visiting professor status. Permanent faculty of the university are given up to thirty-five days of annual vacation and may be granted study leave during holiday periods for approved research or field work. Five months of paid sabbatical leave are given for local research after thirty-six months of resident service or nine months of paid sabbatical leave are given after sixty months of resident service. Approved overseas study can be entertained only during the nine-month sabbatical periods. (*Commonwealth Universities Yearbook 1984*, 1,887)

Calendar

All universities now operate on a semester system or on a system of three ten-week terms per year, with medicine and dentistry maintaining a slightly longer schedule. Within a university, schedules for different faculty may vary. The academic year begins in June or July and ends somewhere between February and April (see University Profiles later in this chapter).

Entrance Requirements

Entrance requirements for the universities vary. Some universities take into account the current ethnic enrollment targets. To say that the *Sijil Tinggi Persekolahan Malaysia* (STPM) is the requirement for entrance does not give the whole picture.

Applications for degree programs for five of the universities (all but the Universiti Teknologi Malaysia [UTM]/University of Technology, Malaysia and Universiti Islam Antarabangsa [UIA]/International Islamic University) are processed through a central admissions application processing office of the Ministry of Education, known as Unit Pusat Universiti (UPU). The Registrar of each of the universities sits on a committee that advises the Ministry on admissions policy guidelines administered by the unit. A central application and an informative booklet about the university system and all courses offered at the universities is prepared by UPU. On a regular annual calendar, applications are collected and processed. The applications are rank-ordered by choice of major, academic merit and *bumiputra* (indigenous and other Malay) and non-*bumiputra* groups. The actual selection is left to the individual universities from the rank-ordered lists. The UTM and the UIA process their own applications because the qualifications required for admission vary from the pattern of the other five universities.

The current affirmative action program, designed to raise the socioeconomic levels of the *bumiputra* students, established quotas for each ethnic group for places in the university system. Preference is given to *bumiputra* students in the selection of students for the Faculties of Medicine, Engineering, and Science and special preparatory and tutorial courses for *bumiputra* are provided to help reduce the possibility of failure. (Author's Note: Specific information about how the quota system works was not made available; however, it is

useful to know that the system exists creating different entrance requirements for the different racial groups. This is not unlike the affirmative action programs to increase numbers of minorities in colleges and universities in the United States. The principal difference is that the affirmative action program in Malaysia is for the majority.)

The entrance requirements for each university are listed in the individual school profiles. Generally speaking, however, five of the universities require the STPM or successful completion of their own matriculation program for entrance (see Chapter III). The UTM is unique in that it requires the SPM for entrance to either the degree, the integrated degree (three-year diploma plus two-year degree studies) or the terminal diploma program. The UIA accepts a variety of entrance requirements as it also accepts students from other countries.

The general entrance requirements, which are administered by the UPU of the Ministry of Education, are based on the STPM examination results. STPM examination subjects are listed in Appendix C. Because the affirmative action quotas cannot be met solely through the national examination system, a number of the universities have developed matriculation programs specifically designed to prepare *bumiputra* students for entrance to that university. While the programs follow a similar pattern, each is unique to the school that administers it (see Chapter III).

Language of Instruction

The language of instruction at the universities is mixed. While national policy dictated that the language of instruction in all of the universities was to be *Bahasa Malaysia* beginning in 1983, the reality is constrained by the problem of supply and demand. There are currently not enough qualified faculty who are fluent in *Bahasa Malaysia* available to teach in all subjects. Another problem is that it may be more appropriate to teach some subjects in languages other than the national language because the international language of the subject is other than *Bahasa Malaysia*. To make students competitive on an international basis, the language of instruction varies according to the individual university's policies and the availability of qualified faculty. The UIA uses English as the language of instruction since its student body is comprised of students from a variety of language backgrounds. It is not subject to the national language policy because it is an international university, not fully funded by the Malaysian government.

Academic Programs

The structure of some Malaysian degrees is changing. All universities have been directed to structure their degrees on the four-year model, thus eliminating all three-year degrees and three plus one plans in which the fourth year was taken for an honors degree. All new degree programs will be four years. While all already established degrees are not yet four years, that pattern

should be expected. (Author's Note: Change from the old British-patterned degrees to the new four-year degrees has transpired over time and depended on the subject. Therefore, questions regarding the authorized length of degrees may need to be directed to the Registrar of each university.) In cases where degrees changed from three-year programs to four-year programs, the year that was added consisted of coursework in the major subject and some supplementary related coursework. Information in the school profiles reflects what was authorized as of 1984-1985 and may not reflect the historical structure of some degrees.

In the new four-year honors degree structure, the classification of the degree will indicate performance of the student. At the Universiti Malaya (UM)/ University of Malaya, 40% of the evaluation is taken from the next to the last year and the balance from the last year for honors assessment. However, there may be some variation by faculty. The quality is indicated by First Class, Second Class – Upper, Second Class – Lower, and Third Class designations.

The name of the first degree in *Bahasa Malaysia* is *Sarjana Muda* (also *Sarjanamuda* and *Bacelor*), translated as bachelor's degree. While most records come translated or with translations, the terms on the original document will say *Sarjana Muda Sastera* (Bachelor of Arts) or *Sarjana Muda Sains* (Bachelor of Science), *Dengan Kepujian* (with honors) and will give the subject and the quality classification. The master's degree is noted as *Sarjana* (or *Master*) and the Doctor of Philosophy as *Doktor Falsafah*. Degrees in the school profile are listed in English for the sake of clarity and brevity. See Documents 5.1–5.7 for sample credentials.

There is some effort not to duplicate faculties in Malaysia; therefore, a student who wishes to study a particular subject may find but one school offering the degree course. The degree, diploma and certificate offerings are listed by university in Chart 5.1 and in the University Profiles later in this chapter. Requirements for a degree in the same subject may vary from university to university in content, length and entrance requirement. Tables 5.2, 5.3, 5.4, 5.5 and 5.6 are sample curricula for programs in accounting, architecture, economics, engineering and medicine, respectively.

While some universities have been authorized to grant graduate degrees for some years, the graduate academic programs have been actively developed only in recent years. (Some universities which are authorized to grant graduate degrees have never exercised the option.) For example, in 1981, only 1,759 of nearly 30,000 students registered were candidates for graduate degrees. Of those registered in engineering faculties across the system, 266 students received Bachelor of Engineering degrees while only three received master's degrees. In science, 953 received bachelor's degrees while thirty-six received master's degrees that same year. Comparable numbers for some of the other faculties are: Arts, 777 bachelor's and sixteen master's; Economics, 432 bachelor's and four master's; Social Science, 577 bachelor's and five master's. (*Commonwealth Universities Yearbook 1984*, 1,890) Table 5.7 shows a sample university degree distribution for 1984.

UNIVERSITI MALAYA

IJAZAH
SARJANA MUDA KEJURUTERAAN

SPECIMEN

5.1. Universiti Malaya (UM) Degree Scroll Showing *Sarjana Muda Kejuruteraan* (Bachelor of Engineering)

UNIVERSITY OF MALAYA

DEGREE OF
BACHELOR OF ENGINEERING

It is hereby certified that

of the University of Malaya, having completed the approved course of study and having satisfied the Board of Examiners for the Examination for the Degree of Bachelor of Engineering and having been awarded

in the Examination, was duly admitted to the Degree of Bachelor of Engineering of this University on

SPECIMEN

Certified Translation

(Sgd.) Vice-Chancellor

(Sgd.) Dean, Faculty of Engineering

For Registrar

(Sgd.) Registrar

5.2. Universiti Malaya (UM) Degree Scroll Issued for Overseas Use

5.3. Universiti Malaya (UM) B.Sc. (Pass) Degree Transcript Showing Direct Entry to Second Year Degree Study on the Basis of HSC Results

UNIVERSITY OF MALAYA

CERTIFICATE OF ATTENDANCE AT COURSES OF STUDY

FOR OVERSEAS USE

Name:

Matric No.:

Faculty: SCIENCE

Date of Admission: JUNE 1974

Qualification Conferred: B.Sc. (Pass)

Date of Graduation: 26 JUNE 1976

Session	Year of Course	Courses of Study	Grade	Examination taken Class & Result
1974/75	II	SA31 - Applied Mathematics	C	Second Year Examinati
(Direct Entry)		SA32 - Pure Mathematics	C	
		SA34 - Physics	B	January 1975 - Passed
		SB10 - Bahasa Malaysia I	B	
1975/76	III	SA30 - Physics	D	Pass Degree Examinati
		SA31 - Applied Physics	D	
		SF30- Bahasa Malaysia II	Exempted	January 1976 - Passed

Remarks: was admitted direct into the Second Year Science Course on the basis of his Higher School Certificate Examination results.

was conferred the Bachelor of Science (Pass) Degree at a Convocation held on 26 June 1976.

Key: A,B,C,D - Pass
E,F - Fail

/ms,ms.

(ISHAKMAR BAHSIAR)
FOR REGISTRAR
UNIVERSITY OF MALAYA

5.4. Universiti Malaya (UM) Registrar's Letter of Explanation

UNIVERSITI MALAYA

Lembah Pantai
KUALA LUMPUR

ALAMAT KAWAT: UNIVSEL
TELEFON: 5400322 (10 talian)
5711044 (10 talian)

Dr Kuno

9 April 1985

Dear Sir/Madam,

Re: _____

I refer to your letter of 7 March 1985 regarding the above-named.

Until the 1975/76 session, the B.Sc. course was a 3 year course leading to a Pass Degree with an additional year for the Honours Degree course. To be eligible for admission to the course for the Degree of Bachelor of Science with Honours, a candidate must have passed the Pass Degree Examination in Science of the University. Such candidates will be considered on the basis of their performance in the Pass Degree Examination. In 1975/76 the B.Sc. course was restructured to a 4 year course leading to a Pass or Honours Degree. Candidates are awarded a Pass or Honours Degree on the basis of their performance in the Third and Fourth Year Examinations.

was admitted to the Science course in the 1974/75 session and conferred the Bachelor of Science Pass Degree in 1976. His degree would be better described as a general degree.

I hope the above information clarifies your enquiries.

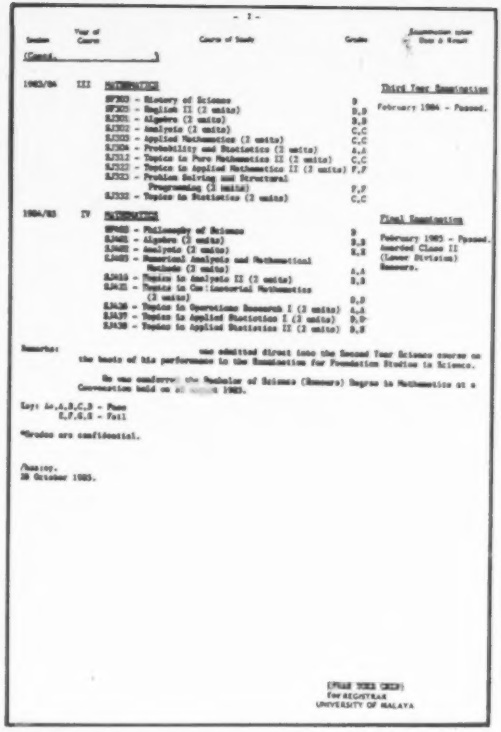
Thank you.

Yours sincerely,

(Wan Lin Heng (Miss))
For Registrar

/pveinn.

5.5. Universiti Malaya (UM) B.Sc. (Hons.) Degree Transcript Showing Direct Entry to Second Year on Foundation Study in Science



- 1 -

Session	Year of Course	Course of Study	Grades	Examination taken Date & Result
(Contd.)				
1983/84	III	Mathematics		Third Year Examination
		SF303 - History of Science	B	February 1984 - Passed.
		SF305 - English II (2 units)	B,B	
		SJ301 - Algebra (2 units)	B,B	
		SJ302 - Analysis (2 units)	C,C	
		SJ303 - Applied Mathematics (2 units)	C,C	
		SJ304 - Probability and Statistics (2 units)	A,A	
		SJ312 - Topics in Pure Mathematics II (2 units)	C,C	
		SJ322 - Topics in Applied Mathematics II (2 units)	F,F	
		SJ323 - Problem Solving and Structural Programming (2 units)	F,F	
		SJ332 - Topics in Statistics (2 units)	C,C	
1984/85	IV	Mathematics		Final Examination
		SF403 - Philosophy of Science	B	February 1985 - Passed.
		SJ401 - Algebra (2 units)	B,B	Awarded Class II (Lower Division)
		SJ402 - Analysis (2 units)	B,B	Honours.
		SJ403 - Numerical Analysis and Mathematical Methods (2 units)	A,A	
		SJ410 - Topics in Analysis II (2 units)	B,B	
		SJ421 - Topics in Combinatorial Mathematics (2 units)	B,B	
		SJ436 - Topics in Operations Research I (2 units)	A,A	
		SJ437 - Topics in Applied Statistics I (2 units)	B,B	
		SJ438 - Topics in Applied Statistics II (2 units)	B,B	

Remarks: was admitted direct into the Second Year Science course on the basis of his performance in the Examination for Foundation Studies in Science.

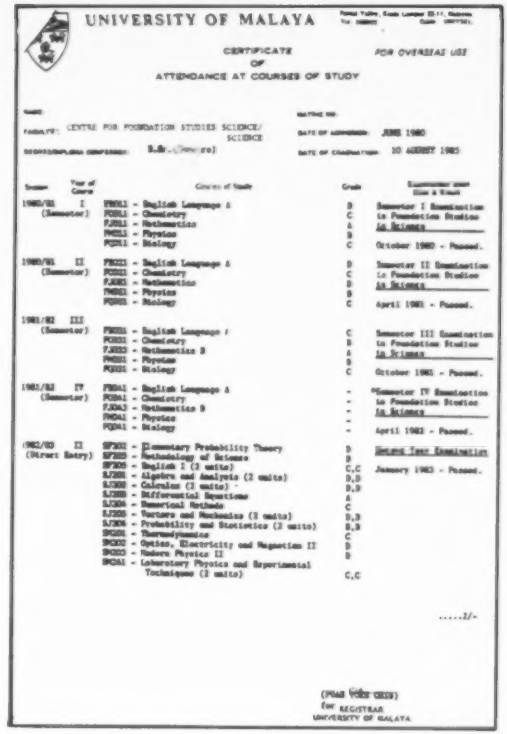
He was conferred the Bachelor of Science (Honours) Degree in Mathematics at a Convocation held on [illegible] 1985.

Key: As.A,B,C,D - Pass
E,F,G,S - Fail

*Grades are confidential.

/hasrep.
28 October 1985.

[Name illegible]
for REGISTRAR
UNIVERSITY OF MALAYA



UNIVERSITY OF MALAYA

[illegible]

CERTIFICATE
OF
ATTENDANCE AT COURSES OF STUDY

FOR OVERSEAS USE

Name:

Matric No:

Faculty: CENTRE FOR FOUNDATION STUDIES SCIENCE/ SCIENCE

Date of Admission: JUNE 1980

Degree/Diploma Conferred: B.Sc. (Hons)

Date of Graduation: 10 AUGUST 1985

Session	Year of Course	Courses of Study	Grade	Examination taken Date & Result
1980/81 (Semester)	I	FSS11 - English Language A	B	Semester I Examination in Foundation Studies in Science.
		FSS12 - Chemistry	C	
		FSS13 - Mathematics	A	
		FSS14 - Physics	B	
		FSS15 - Biology	C	October 1980 - Passed.
1980/81 (Semester)	II	FSS21 - English Language A	B	Semester II Examination in Foundation Studies in Science.
		FSS22 - Chemistry	C	
		FSS23 - Mathematics	B	
		FSS24 - Physics	B	
		FSS25 - Biology	C	April 1981 - Passed.
1981/82 (Semester)	III	FSS31 - English Language A	C	Semester III Examination in Foundation Studies in Science.
		FSS32 - Chemistry	B	
		FSS33 - Mathematics B	A	
		FSS34 - Physics	B	
		FSS35 - Biology	C	October 1981 - Passed.
1981/82 (Semester)	IV	FSA1 - English Language A	-	*Semester IV Examination in Foundation Studies in Science.
		FSB1 - Chemistry	-	
		FSC1 - Mathematics B	-	
		FSD1 - Physics	-	
		FSE1 - Biology	-	April 1982 - Passed.
1982/83 (Direct Entry)	II	SF202 - Elementary Probability Theory	B	Second Year Examination
		SF203 - Methodology of Science	B	
		SF205 - English I (2 units)	C,C	January 1983 - Passed.
		SJ201 - Algebra and Analysis (2 units)	B,B	
		SJ202 - Calculus (2 units)	B,B	
		SJ203 - Differential Equations	A	
		SJ204 - Numerical Methods	C	
		SJ205 - Vectors and Mechanics (2 units)	B,B	
		SJ206 - Probability and Statistics (2 units)	B,B	
		SP201 - Thermodynamics	C	
		SP202 - Optics, Electricity and Magnetism II	B	
		SP203 - Modern Physics II	B	
		SP241 - Laboratory Physics and Experimental Techniques (2 units)	C,C	

.....2/-

[Name illegible]
for REGISTRAR
UNIVERSITY OF MALAYA

Universiti Pertanian Malaysia

Adalah dengan bahawa

sesudah memenuhi syarat-syarat yang ditetapkan oleh Senat telah dianugerahkan Ijazah

Master Sains

5.6. Universiti Pertanian Malaysia (UPM) Degree Scroll Showing *Master Sains*

Universiti Pertanian Malaysia

Adalah dengan bahawa

sesudah memenuhi syarat-syarat yang ditetapkan oleh Senat telah dianugerahkan Ijazah

Doktor Falsafah

5.7. Universiti Pertanian Malaysia (UPM) Degree Scroll Showing *Doktor Falsafah*

Chart 5.1. Degrees, Diplomas, and Certificate Programs Offered at Malaysian Universities, 1985

	UKM	UM	UPM	USM	UTM	UUM	UIA
Fulltime Study (PT study proportionately longer)	Incl. req. sem. units where avail.	–	–	Incl. req. sem. units where avail.	Bach. = 150–170 units; Dip. = 85–100 units	Incl. req. sem. units where avail.	–
1 yr. certificate (based on SPM)	–	Comp. Sci. (req. 5 yrs. exp.) X-ray Analy. Meth.	–	Creative Arts Ed. Tech. Mass Communica.	–	–	–
3 yr. certificate (based on SPM)	–	Lang. Prof.	–	–	–	–	–
1 yr. advd. certificate (based on 3-yr. cert.)	–	Lang. Prof.	–	–	–	–	–
3 yr. diploma (based on SPM)	–	–	Agrbus. Agr. Comp. Sci. Engr. (Agr.) Fish. For. Hum. Dev. Sci./Ed.	Med. Lab. Tech.	Arch. Chem. Engr. Civ. Engr. Comp. Sci. Elec. Engr. (Communica. or Power) Land Surv.		

continued

	UKM	UM	UPM	USM	UTM	UUM	UIA
					Mech. Engr. Mech. Engr. (Marine or Aero.) Petrol Engr. Quant. Surv. Sci./Ed. Urb. & Reg. Plng. Valuation	–	–
3.5 yr. diploma (based on SPM)	–	–	Anim. Health Prod.	–	–	–	–
3 yr. Bachelor's (based on STPM or matric.)	Arts (Gen.)—90 Econ. (Gen.)—90 Islamic Stud. (Gen.)—90	Arts (Pass or Honors) Econ. (Pass or Honors) Med. Sci. (1 yr. post-2d yr. M.B.B.S. exam)	–	–	–	–	–
4 yr. Bachelor's (based on STPM or matric.)	Acctg. (Hons.)—120 Arts (Hons.)—	Acct. (Hons.) Dent. Surg. Engr. (Pass or Hons.)	Agr. Sci. Comp. Sci. Ed. (Agr. Sci., Guid. & Coun.,	Appl. Sci.—138 Arts—120 Arts/Ed.—144	–	Acct.—130 Bus. Admin.—130 Econ.—130	Econ. Law Bus. Admin.

	add. 30 Bus. Admin. (Hons.)—125 Dev. Sci. Econ. (Hons.)—add. 30 Ed.—128 Engr.—128 Islam Stud. (Hons.)—add. 30 Quant. Stud. (Gen. or Hons.)—120 Sci./Ed. (Hons.)—128 Sci. (Gen. or Hons.)—120	Islam. Ed. (Pass or Hons.) Islam. Law (Pass or Hons.) Islam. Stud. (Pass or Hons.) Law (Hons.) Sci. (Pass or Hons.) Sci./Ed. (Pass or Hons.)	Home Sci., P.E., TBMFL, TESL) Engr. (Agr. or Civ.) Food Sci. & Tech. Sci. (Agrbus., Environ., Fish., For., Res. Econ.) Sci./Ed. (Hons.) Sci. (Hons.)	Commu-nica.—120 Comp. Sci.—138 Ed.—140 Engr.—146 Mgt.—120 Pharm.—146 Sci. (Bio., Chem., Math./Comp. Sci., Physics)—120 Sci./Ed.—150 Sci. (HBP)—146 Soc. Sci.—120 Tech.—146		Pub. Admin.—130
5 yr. degree (based on SPM, matric., STPM or dip.)	Law	M.B.B.S.	Vet. Med. (D.V.M.)	Arch. M.D. (Int.)	Chem. Engr. Civ. Engr. Elec. Engr. Mech. Engr. Mech. Engr. (Marine or Aero.) Petrol. Engr. Quant. Surv. (Int.)	

continued

	UKM	UM	UPM	USM	UTM	UUM	UIA
					Sci. (Comp. Sci.) (Int.) Sci./Ed. (Int.) Surv. (Land or Prop. Mgt.) Urb. & Reg. Plng. (Int.)	–	–
6 yr. degree (based on matric., STPM or dip.)	M.D.	–	–	–	Arch. (Int.)	–	–
1 yr. PG diploma	Adv. Dip. Comp. Sci. Dip. Ed.	Adv. Trans. Comp. Sci. Ed. ESL Int'l. Interp. Pub. Admin.	–	–	Comp. Sci.	–	–
1.5 yr. PG diploma	Islam. Stud. Personnel Mgt.	–	–	–	–	–	–
2 yr. PG diploma	–	Conf. Interp. Translation	–	–	–	–	–
1 yr. Master's	–	Law Pub. Health (post-	Agr. Sci. Ed. Engr. (Agr.)	Arts Ed. Sci. (Bio.,	Comp. Sci.	–	–

		M.B.B.S.) Sci. (post-Hons. deg.)	Food Sci. & Tech. Sci. Sci. (Agr., Dev. Communica., Ext. Ed., Fish. & Marine Sci., For., Res. Econ. & Agr., Sci. & Environ. Stud., Vet. Med.) Vet. Med. (M.V.M.) Vet. Sci. (M.V.S.)	Chem. Engr., Math./ Comp. Sci., Phys.) Soc. Sci.			
1.5 yr. Master's	–	Mod. Lang. Stud.	–	–	–	–	–
1.5 to 3 yr. Master's	Pharmacology	–	–	–	–	–	–
2 yr. Master's	Arts Bus. Admin. Econ. Islam. Stud. Quant. Stud. Sci.	Arts Bus. Admin. Comp. Law Econ. Ed. (post-Dip. Ed.) Engr. Sci. Islam. Law					

continued

	UKM	UM	UPM	USM	UTM	UUM	UIA
		Islam Stud. Phil. Pub. Admin.	–	–	–	–	–
2 yr. degrees (post-M.B.B.S.)	–	M.D. M. Path. M. Psyc. Med.	–	–	–	–	–
2.5 yr. Master's	Ed.	–	–	–	–	–	–
4 yr. FT Master's	Med. (Radiol. & Pedia.) Surg. (Gen. Surg., Ortho-ped., Oto-rhino-laryn-gology, Ophtha-mol.)	–	–	–	–	–	–
2 or 3 to 5 yr. Ph.D.	Ed. Islam. Stud. Life Sci. Phys. & Appl. Sci. Soc. Sci. & Hum.	All faculties	All faculties except Fish. & Marine Sci., For., and Food Sci. & Tech.	All schools except Ed., HBP, Med. Sci. & Pharm.	–	–	–

Table 5.2. Sample Course of Study for the Bachelor of Accounting (Honors) Degree from UM

Regulations: All students must complete first B.Econ. course before selection into the accounting degree course. Unless otherwise stated, all courses are one unit and represent 35–75 class hours of lecture, tutorial or seminar. All courses listed below must be taken unless exemptions are given. The examination for each one-unit course consists of a 2–3.25 hour written exam. The examination for each two-unit course consists of two written papers, each 2–3 hours, or an exercise prescribed by the faculty.

	Hours/Week		Hours/Week
Year I			
Bahasa Malaysia I *or*	2.5	Intro. to Macroeconomics	2.5
Special English I	2.0	Intro. to Microeconomics	2.5
Introductory Accounting	3.0	Intro. to Politics & Admin.	2.5
Intro. to Bus. Admin.	2.5	Malaysian Economics	2.5
Year II			
Bahasa Malaysia II *or*	2.5	Intermed. Accounting II	3.0
Special English II	2.0	Macroeconomics I	2.5
Accounting Systems	3.0	Microeconomics I	2.5
Commercial & Company Law	3.2	Quantitative Analysis IIA *or*	3.0
Corp. Finance & Controls	3.0	Quantitative Analysis IIB	3.0
Intermed. Accounting I	3.0		
Year III			
Advanced Accounting I	3.0	Macroeconomics II	2.5
Advanced Accounting II	3.0	Microeconomics II	2.5
Auditing	3.0	Management Accounting II	3.0
Corp. Finance, Policies & Practices	3.0	Specialized Legal Matters A	3.2
Intro. to Comp. & Program.	3.0	Taxation	3.0
Year IV			
	Credit		Credit
Accounting Theory & Practices	2 × 2.5	Advanced Taxation	2 × 2.5
Advd. Auditing & Profess. Knowl.	2 × 2.5	Special. Financial Acct.	2 × 2.5
Advd. Mgt. Acct. & Info. Systems	2 × 2.5		

Table 5.3. Sample Course of Study for the Bachelor of Architecture from UTM (Six Year Integrated Degree)

	Hours/Week		Hours/Week
Year I		Year II	
Advanced Math	3	Bldg. Constr. & Materials II	2
Advanced Physics	2	Design II	8
Bldg. Constr. & Materials I	2	Environ. Physics I	2
Design I	6	Field Work* & Working Drawing*	3.5
Draftsmanship* & Bldg. Constr. Draw.*	4	Hist. Arch. I	1
Graphics	4	Malay. Studies	2
Malay. Studies/English Language	2	Pet Project	1
Relig. Ed./Soc. Ethics	2	Relig. Ed./Soc. Ethics	2
		Services I	1
		Structures I	2
		Survey	1.5
Year III		Year IV	
Bldg. Constr. III	2	Bldg. Constr. IV	2.5
Design III	9	Bldg. Economics	1.5
Environ. Physics II	2	Design VI* & Main Project*	12
Hist. Arch. II	1	Relig. Ed./Soc. Ethics	2
Lab Work* & Working Drawing*	4	Services III	1
Malay. Studies	2	Sociol. Hist. Arch. III	2
Materials III	1	Structures III	2
Relig. Ed./Soc. Ethics	2	(Students may sit for PAM Part I)	
Services II	1		
Structures II	2		
Theory Design* & Prin. of Econ.*	2		
UTM Dip. Arch. awarded at end of Year III.			
Year V		Year VI	
Design V*	13	Design IV* & Thesis*	16
Dissertation	1	P. Practice	3
Landscape*	3		
Planning*	1.5	UTM Bachelor of Arch. awarded at end of Year VI.	
P. Prac. I*	2		
Relig. Ed./Soc. Ethics	1.5	(Students may sit for PAM Part II)	
Prac. Training†	19.5		

*Indicates one semester course.
†Indicates six months of practical training taken in the second semester.

Table 5.4. Sample Course of Study for the Bachelor of Economics Degree* from UM

	Hours/Week
Year I	
Bahasa Malaysia I *or*	2.5
Special English I	2.0
Intro. Accounting	3.0
Intro. to Bus. Admin.	2.5
Intro. to Macroeconomics	2.5
Intro. to Microeconomics	2.5
Intro. to Politics & Admin.	2.5
Malaysian Economics	2.5
Quantitative Analysis I	2.5
Year II	
Analytical Economics Option	
Bahasa Malaysia II *or*	2.5
Special English II	2.0
Macroeconomics I	2.5
Math Economics I	3.0
Microeconomics I	2.5
Quant. Analysis IIA *or*	3.0
Quant. Analysis IIB	3.0
Any two:	
International Econ. I	2.5
Monetary Economics I	2.5
Public Finance I	2.5
Two Year II electives	
Applied Economics Option	
Bahasa Malaysia II *or*	2.5
Special English II	2.0
Economic Development I	2.5
Macroeconomics I	2.5
Microeconomics I	2.5
Planning I	2.5
Quant. Analysis IIA *or*	3.0
Quant. Analysis IIB	3.0
Any three:	
Econometrics (taken with Monetary Economics I)	2.5
International Economics I	2.5
Math Economics I	3.0
Monetary Economics I	2.5
Principles of Islamic Econ.	—
Public Finance	2.5
Regional Economics I	2.5

continued

Year III

Analytical Economics Option	Hours/Week
Macroeconomics II	2.5
Microeconomics II	2.5
Any two:	
International Econ. II	2.5
Monetary Economics II	2.5
Public Finance II	2.5
Welfare Economics	2.5
Any two (assumes prereq. met):	
Econ. of Income & Wealth Distribution	2.5
International Econ. II	2.5
Math Economics II	3.0
Monetary Economics II	2.5
Public Finance II	2.5
Quant. Analysis IIIA	2.5
Either option:	
A. 2-unit graduation exercise + 2 Year III electives	
B. 4 Year III electives	

Applied Economics Option	Hours/Week
Economic Development II	2.5
Macroeconomics II	2.5
Microeconomics II	2.5
Planning II	2.5
Either option:	
A. 2-unit graduation exercise + 4 electives†	
B. 6 electives†	
†Electives (assumes prereq. met):	
Dev. of Econ. Thoughts	2.5
Econometrics II	2.5
Econ. Dev. of S.E. Asia	2.5
Industrial Economics	2.5
International Economics II	2.5
Islamic Econ. Analysis	2.5
Math Economics II	3.0
Monetary Economics II	2.5
Population Econ. & Policies	2.5
Primary Commodity Econ.	2.5
Public Finance II	2.5
Quant. Analysis IIIA	2.5
Regional Economics II	2.5
Transport Economics	2.5
Welfare Economics	2.5

Note: Each course = 1 credit.
*Currently a three-year course. Will change to four-year course in near future.

Table 5.5. Sample Engineering Programs for the Bachelor of Engineering Degree from UM

Year I

	Lecture	Lab
Engineering Drawing	1	1
Mathematics I	5	–
Applied Electricity I	2	3
Applied Mechanics I	2	
Applied Thermodynamics I	2	
Materials Science I	2	
Workshop Tech./Measurements	2	

Civil Option	Lec	Lab	Electrical Option	Lec	Lab	Chemical Option	Lec	Lab
Year II								
Mathematics II	5	–	Mathematics II	5	–	Mathematics II	5	–
			Engr. Design	2	1			
Civ. Engr. Design I	1	1						
Geology	1					Appl. Elec. IIA	2	3
			Appl. Elec. IIA	2	3	Chem. Engr. Thermo.	1	
Appl. Elec. IIA	2	3	Appl. Elec. IIB	2		Chem. Process Prin.	2	
Appl. Mech. II	2		Appl. Mech. II	2		Fluid Mech. I	2	
Fluid Mech. I	2		Fluid Mech. I	2		Heat Transfer	1	
Strength of Mat.	2		Strength of Mat.	2		Organic Chem.	1	
Surveying I	2					Physical Chem.	1	
			Intro. Comp. Sci.	–	–	Strength of Mat.	2	
Intro. Comp. Sci.	–	–						
						Intro. Comp. Sci.	–	–

continued

Civil Option	Lec	Lab	Electrical Option	Lec	Lab	Chemical Option	Lec	Lab
			Year III					
Engr. Analysis	3	–	Engr. Analysis	3	–	Chem. Engr. Thermo. II	2	–
Civ. Engr. Design II	2	1	Elec. Engr. Design I	2		Chem. Reaction Engr.	2	–
Civ. Engr. Mat.	2		Circuit Theory	2		Fuel Tech.	1	–
Soil Mech. & Engr. I	2	2	Communicas. I	2		Instrument Tech.	1	
Structures I	2		Elec. Power Apparatus & Systems I	2	3	Mass Transfer Operat.	3	
Surveying II	2		Electromagnetic Theory	2		Mech. Separations & Materials Handling	3	3
Water Res. Engr.	2		Electronics I	2		Process Analy. & Design	1	
						Transport Processes I	2	
			Year IV					
Management	3	–	Management	3	–	Management	3	–
Civ.Engr. Design III	2	1				Process Control	2	–
			Communications II	2		Chem. Engr. Design	2	
Fluid Mech. II (Civil)	2		Control & Instrum.	2		*plus* Option A		
Soil Mech. & Fdn. Engr. II	2	1	Elec. Power Apparatus & Systems II	2	2	Chem. Reaction Engr. II	2	–
Structures II	2		Electronics II	2		Chem. Engr. Electives	4	2
2 Civ. Engr. Electives	4	–	2 Elec. Engr. Electives	4		Transport Processes II	2	
						or Option B		
Survey Comp. (2 wks.)	–	–	Graduation exercise	–	–	Polymer Science	3	2
Graduation exercise	–	–				Polymer Technol.	5	
						Graduation exercise	–	–

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Table 5.6. Medical Science Curriculum for Degree of Doctor of Medicine (M.D.), USM

Phase I Year 1	Community Medicine and Behavioral Science First Aid and Nursing Normal Human Beings Tissue Reaction (Response to Injury)
Basic Foundation	Introduction to Clinical Studies Electives First Professional Exams

Phase II Years 2 and 3 Organ System	Basic Medical Sciences Anatomy Chemical Pathology Histopathology Microbiology Parasitology Pharmacology Physiology Systems Cardiovascular Endocrine/Metabolic/Reproductive Gastrointestinal Hematology/Immunology Musculoskeletal Nervous System Psychobiology/Social Psychology Renal/Glands Respiratory System Senses/Dermatology
	Clinical Attachment Half of student's time during Phase II will be spent in the wards where students receive bedside teaching and supervised clerkship. Community Medicine Project work which focuses on the family case study. Other topics include Child Health, Preventative Medicine, Applied Nutrition, Environmental Sanitation and Dental Health Electives Second Professional Exams

continued

Phase III Years 4 and 5 Problem Solving and Clerk-ship	Dermatology Laboratory Medicine Medicine Obstetrics and Gynecology Ophthalmology Orthopedics Otolaryngology Pediatrics Psychiatry Surgery Therapeutics
	Clinical Experience Community Medicine Electives Third Professional Exams

Note: Each year consists of forty weeks divided into eight to ten week terms with a break between terms.

Table 5.7. Sample University Degree Distribution, 1984

Faculty	Classification						
	I	II (Upper)	II (Lower)	III	Gen. Degree*	M.D.	Total
Business Management							
Accounting	–	15	49	1	NA	–	65
Bus. Administration	1	8	37	7	–	–	53
Economics	–	55	72	–	89	–	216
Islamic Studies	2	70	92	NA	35	–	199
Life Science	–	13	62	8	26	–	109
Medicine	–	–	–	–	–	136	136
Physics & Appl. Sci.	1	17	75	18	67	–	178
Quant. Studies	–	11	43	5	30	–	89
Science & Nat. Res.	1	16	44	7	5	–	73
Soc. Sci. & Human.	2	89	202	–	86	–	379
Total	7	294	676	46	338	136	1,497
% of Total	0.4	19.6	45.2	3.1	22.6	9.1	

*General Degree awards include students who voluntarily sit for the General Degree classification as well as those who are not successful in earning other classifications on exams.

Grading

Grading patterns at the universities have typically followed the British system very closely. Students receive grades for each course they have taken and transcripts can be obtained which give course grades as well as an overall

classification of the degree. Transcripts and the amount of information provided on the transcript vary from university to university. The examinations at the end of the degree program along with the individual course grades determine the classification of the degrees. The distribution of the classifications will vary by university and by faculty within a university but are awarded on the following scheme: First Class, Second Class–Upper Division, Second Class–Lower Division, Third Class, General or Pass. The Third Class and General or Pass degrees are not usually acceptable for entrance to further study at the graduate level. Variations on grading patterns are listed in each school profile.

Generalizations cannot be made about grades or grade distribution at Malaysian universities as each faculty within a university may have its own grade scale and distribution practices. For example, the 1985 *Examination Regulations (Peraturan-Peraturan Peperiksaan)* of the Universiti Malaya (UM)/University of Malaysia, which lists the grade scales by degree programs within the faculties of the university, gives more than a dozen different grade scales.

University Profiles

Note: Within each university profile that follows, acronyms and initialisms for other institutions, professional bodies or examinations may appear. The reader is directed to Appendix E for a list of these acronyms and initialisms and the institution, professional body or examination represented.

National Universities

UNIVERSITI KEBANGSAAN MALAYSIA (UKM)/NATIONAL UNIVERSITY OF MALAYSIA, Bangi, Selangor, Malaysia. Telex: MA31496. Telegram: UNIKEB.

Description—Estd. 1970. Fully govt. funded. All degrees and dips. fully recognd. by Min. of Education. Branch campus in Kota Kinabalu, Sabah (estd. 1974). Medical Fac. located in Kuala Lumpur with General Hospital. Primary instruc. in *Bahasa Malaysia*; Engl. used in 20% of courses. Enrollment (1984): 42 FT and 109 PT dip., 7,740 FT bach.'s degree, 227 FT and 90 PT postgrad. dip., 143 FT and 57 PT grad. degree students. Library: 366,800 books; 5,400 periodical titles; 53,241 bound periodical volumes. Spec. S.E. Asia, rare and out-of-print Arabic and Islamic collections.

Calendar—(2 sems.) July-Nov., Dec.-May. Sem. sys. adopted 1975-1976. Sem. consists of 8 wks. of lect., 1 wk. of vacation, 7 wks. of lect., 3 wks. of exams.

Faculty (1984)—26 FT Profs., 134 FT Assoc. Profs., 698 FT and 31 PT Lects., 73 FT and 106 PT Tchrs., 142 FT Tutors. Qualifications: Ph.D.'s, 30%; master's, 70%. (Undergrad. fac. must have master's degree; grad. fac. must have Ph.D.'s.)

University Affiliations—Fac. exchange between Chem. Depts. of UKM and Univ. of Salford, U.K.

Grading Scale—Undergrad. grades given for coursework and mid-sem. exams (major courses only) and at end of sem. as follows: A = 75–100; B = 65–74; C = 55–64; D = 45–54; E (Fail) = 30–44; F (Fail) = 0–29 (except. in Fac. of Bus. Mgt. where 0–44

= F [Fail] and Fac. of Sci. & Nat. Resources where 0–44 = E [Fail]). Students must have min. of D to pass course and average of C to receive degree.

Scale for Medical Faculty: A = 80–100; B = 70–79; C = 60–69; D = 50–59; E (Fail) = 40–49; F (Fail) = 0–39.

Graduate Grade Scale: A (4.00) = 85%–100%, A– (3.67) = 80%–84%, B+ (3.33) = 75%–79%, B (3.00) = 70%–74%, B– (2.67) = 65%–69%, C+ (2.33) = 60%–64%, C (2.00) = 55%–59%, C– (1.67) = 50%–54%, D (1.00) = 45%–49%, F (0.0) = 0–44%; P/F = Pass/Fail, I = Incomplete, O = Audit, W = Withdrew. Grad. students must maintain min. of B (3.00) G.P.A.

Degrees are classified as follows: First Class Hons. = 75–100; Second Class, Upper Div. Hons. = 65–74; Second Class, Lower Div. Hons. = 55–64 (except Fac. of Islamic Studies and Fac. of Soc. Sci. & Human. where Second Class, Lower Div. Hons. = 45–64); Third Class Hons. = 45–54 for Fac. of Bus. Mgt. and Fac. of Sci.; Gen. Degree = 45–54 for Fac. of Soc. Sci. & Human. or Fac. of Economics.

Official Records—Official records issued by Acad. Registrar for Undergrad. Studies and Center for Advd. Studies for grad. students. Reports from Deans, Directors and Dept. Heads should also be acceptable. Records showing courses taken and grades received avail., and partial transcrs. given to students. Graduation scrolls issued 3 mos. after graduation. Syllabi (in *Bahasa Malaysia*) avail. on request.

Minimum FT Program—Min. undergrad. courseload is 12 sem. units; max. is 19 except for Fac. of Sci. & Nat. Resources which is 20. Min. grad. courseload is 9 units; max. is 15 units.

Entrance Requirements—Bach.'s degree progs. req. SPM with Pass in *Bahasa Malaysia* + STPM with Pass in Gen. Paper + 2 Prin. Passes *or* 1 Prin. Pass and 2 other subjs. passed with grade of R *or* (except for Fac. of Islamic Studies and Fac. of Soc. Sci. & Human.) Pass in 3 subjs. with grade A through D on the *Sijil Matrikulasi* UKM (UKM Matric. Cert.). Facs. may have specific subj. and grade requirs. for entrance. Selec. facs. may consider dips. from ITM and PUO in rel. field and may give exempts. in some cases (selec. ITM Dip.Sci. holder with G.P.A. of 3.00 or higher may enter 2d yr. of Fac. of Medicine).

Master's degree and postgrad. dips. req. bach.'s degree and Ph.D. reqs. master's degree for entrance.

Degrees and Diplomas Offered—

Center for Quantitative Studies: 4 yr. (120 units) B.S. (Gen.), B.S. (Hons.); 1 yr. postgrad. Advd. Dip.Comp. Sci.; 2 yr. FT or 4 yr. PT M.S. degree.

Education Center: 4 yr. (128 units) B.S. in Ed. (Hons.); 1 yr. postgrad. Dip.Ed.; 2.5 yr. FT or 4 yr. PT M.Ed.; 3 yr. FT or 5 yr. PT Ph.D. (Ed.) degree.

Faculty of Business Management: 4 yr. (125 units) B.B.A. (Hons.) or (120 units) B.Acct. (Hons.); 1.5 yr. FT or 3 yr. PT postgrad. Dip.Pers. Mgt.; 2 yr. FT or 4 yr. PT M.B.A. degree.

Faculty of Development Science (estd. 1985): 4 yr. B.Dev. Sci. degree.

Faculty of Economics: 3 yr. (90 units) B.Econ. (Gen.), 1 add. yr. (30 units) for Hons.; 2 yr. FT or 4 yr. PT M.Econ. degree.

Faculty of Engineering (estd. 1985): 4 yr. (128 units) B.Engr. degree.

Faculty of Islamic Studies: 3 yr. (90 units) B.Islamic Studies (Gen.), 1 add. yr. (30 units) for Hons.; 1.5 yr. PT postgrad. Dip.Islamic Studies; 2 yr. FT or 3 yr. PT M.Islamic Studies; Ph.D. degree.

Faculty of Law (estd. 1986): 5 yr. B.Law degree.

Faculty of Life Sciences: 4 yr. (120 units) B.S. (Gen.), B.S. (Hons.); 2 yr. FT or 4 yr. PT M.S.; 3 yr. FT or 5 yr. PT Ph.D. degree.

Faculty of Medicine: 6 yr. M.D.; 4 yr. (FT post-M.D.) M.Gen. Surgery, M.Orthopedic Surgery, M.Surgery (Otorhinolaryngology), M.Surgery (Opthalmology), M.Med. (Radiol.), M.Med. (Pedia.); 1.5 to 3 yr. FT M.S. Pharmacology degree.

Faculty of Physical & Applied Science: 4 yr. (120 units) B.S. (Gen.), B.S. (Hons.); 2 yr. FT or 4 yr. PT M.S.; 3 yr. FT or 5 yr. PT Ph.D. (Sci.) degree.

Faculty of Social Sciences & Humanities: 3 yr. (90 units) B.A. (Gen.), 1 add. yr. (30 units) for Hons.; 2 yr. FT or 4 yr. PT M.A.; 3 yr. FT or 5 yr. PT Ph.D. degree.

Faculty of Science & Natural Resources: 4 yr. (120 units) B.S. (Gen.), B.S. (Hons.); 2 yr. FT or 4 yr. PT M.S. degree.

UNIVERSITI MALAYA (UM)/UNIVERSITY OF MALAYA, Pantai Valley, Kuala Lumpur 59100, Malaysia. Telex: MA 37453. Cable Address: Univsel, Kuala Lumpur.

Description—Estd. 1959 as a branch of the Univ. of Malaya in Singapore. Previous Name: Univ. of Malaya in Kuala Lumpur (1959–1961). Fully govt. funded. All degrees, dips. and certs. fully recognd. by government. Became indep. natl. univ. in 1962. *Bahasa Malaysia* used for all official bus. and pub. occasions; however, some courses of study may be taught in Engl. where Lects. profic. in *Bahasa Malaysia* are not available. Arabic used in Facs. of Islamic Studies and Islamic Law. Enrollment (1984): 7,891 FT undergrad.; 220 FT and 355 PT grad. degree; 548 FT postgrad. dip. students. Library: 974,931 vols.; 11,112 periodicals with selec. spec. collects. of Natl. Preserv., Chinese, Art, Rare and Restricted Books.

Calendar—July-June; some courses operate on 3 terms/yr.; others on semesters. Examinations administered at end of 3d term for those facs. which operate on terms and at end of each sem. for facs. which follow semesters. All facs. projected to operate on sems. begin. 1986.

Faculty—64 FT Profs., 227 FT Sr. Lects., 590 FT and 64 PT Lects., 43 FT and 113 PT Tutors. Qualifications: Ph.D.'s, 42%; master's, 43%; profess. qualifs., 15%.

Grading Scale—UM facs. follow different grade scales, and different scales may exist for different degrees within a faculty. Over a dozen variations are noted in the 1985 *Examination Regulations*. On the average, however, A = 70–100, B = 60–69, C = 50–59, D = 40–49, E (Fail) = 0–39.

Faculty of Arts grading scale: Pass – A* (70 and above), awarded for any unit-course = 11 pts.; A (70 and above) = 9; B1 (63–69) = 8; B2 (56–62) = 7; C1 (51–55) = 6; C2 (46–50) = 5; D (40–45) = 4. Redeemable Failure – E1 (35–39) = 3; E2 (30–34) = 2; F1 (25–29) = 1. Fail – F2 (0–24) = 0. Absent from Exam – 0 (0) = X. (Note: Although each of the fail grades is given a point value, no distinction is made between grades E or F when determining the min. no. of fail grades reqd. for pass or provisional pass in any exam.)

Faculty of Engineering grading scale: A + (80 marks and above) = Pass with High Distinct.; A (70–79) = Pass with Distinct.; B = (60–69) = Pass with Credit; C (50–59) = Pass; D (40–49) = Marginal Pass; E (30–39) = Fail; F (below 30) = Bad Failure; X (0) = Absent from Exam.

Faculty of Science grading scale: A + (80 and above) = Excellent; A (70–79) = Very Good; B (60–69) = Good; C (50–59) = Credit; D (40–49) = Pass; E (35–39) = Redeemable Failure; F (30–34) = Fail; G (20–29) = Bad Failure; H (0–19) = Very Bad Failure; X (0) = Absent from Exam.

Degrees also classified on different patterns but fall into these groups: First Class Hons., Second Class (Upper) Hons., Second Class (Lower) Hons., Pass – BIS, B.Econ., B.A., *Sarjana Muda Syariah, Sarjana Muda Usuluddin*. First Class Hons., Second Class (Upper) Hons., Second Class (Lower) Hons., Third Class Hons. – B.Acct., B.Law. First Class Hons., Second Class (Upper) Hons., Second Class (Lower) Hons., Third

Class, Pass: B.Engr., B.Sci., B.Sci. Ed. Awarded without Classification – B.Dent. Surg., M.B.B.S., B.Med. Sci. degree.

Where a student in the univ. has completed the course of study prescribed for final examination (other than medicine) but has been prevented by illness from taking or completing that examination, the Senate may award him an Aegrotat degree. In such a case, no class award may be made.

Official Records—Official records showing examination grades can be obtained from Examination Unit, Univ. of Malaya. Graduation scrolls issued about 1 mo. after graduation. Syllabi avail. on request.

Minimum FT Program—All undergrads. FT students. No. of courses reqd. by each fac. fixed and no. each student must carry each period varies by faculty.

Entrance Requirements—SPM or equiv. + STPM with 2 Passes at Prin. Level or 1 Pass at Prin. Level and 2 Passes at Subsid. Level *or* for selec. facs., selec. dips. and certs. from ITM, PUO, UTM and UPM will be considered for admission and, in some cases, advd. standing. By spec. action of Senate, exempts. may be given for 1st yr. courses, usually for exceptional STPM or GCE A Level exams. Teacher Trng. College Certs. and Higher Cert. of Islamic College may also be considered. Indiv. facs. will req. certain courses and grade levels for entrance which may excede general entrance requirements.

Degrees, Diplomas and Certificates Offered—

Postsecondary Certificates: 8 months – Photogrammetry and Photo Interpretation. 1 year Cert.X-Ray Analytical Methods. 1 year FT or 2 year PT – Cert.Comp. Sci. (open to holders of SPM with 5 yrs.' exper. *or* STPM with 3 yrs.' exper.). 3 year – Cert. of Profic. in Lang. (Arabic, *Bahasa Malaysia*, Burmese, Dutch, Engl., Fr., Ger., Japan., Korean, Mandarin, Philippino, Spanish, Russ., Tamil, Thai).

1 year – Advd. Cert. of Profic. in Lang. (open to holders of Cert. of Profic. in Lang. and degree holders who pass qualifying test), also 1 yr. Advd. Cert. of Profic. in Lang. for Special Purposes.

Undergraduate Degrees: 3 year (Note: Curriculum for 3 yr. degrees currently under review for change from 3 yr. to 4 yr. degrees for implementation by approx. 1987. Under new sys., students may opt to graduate with general degree after 3 yrs. or specialize during 4th year. In 4th yr., students will be reqd. to study independently under min. supervision from Lects. before awarded bach.'s degree with hons.) – B.A. (Pass or Hons.), B.Econ. (Pass or Hons.), B.Med. Sci. (1 yr. course [3 yrs. total] for students who have passed 2d yr. M.B.B.S. [Bach. of Med./Bach. of Surg.] exam).

4 year – B.Acct. (Hons.) (open only to those who have passed the B.Econ. 1st yr. exam), B.S. (Pass or Hons.), B.S. with Ed. (Pass or Hons.), B.Engr. (Pass or Hons.), B.Law (Hons.), B.Dent. Surgery, *Sarjana Muda Syariah*/Bach. in Islamic Law (Pass or Hons.), *Sarjana Muda Usuluddin*/Bach. of Islamic Studies (Pass or Hons.), B.Islamic Ed. (Pass or Hons.).

5 year – M.B.B.S. degree.

Graduate Diplomas: 1 year FT – Advd. Translation (DipAdvTrans), Computer Science (DipComSc), Education (DipEd), English as a Second Language (DipESL), Intl. Interpretation (DipInterIn), Public Admin. (DipPA).

2 year FT – Conference Interpretation (DipConfIn), Translation (DipTrans).

Graduate Degrees: The following are generally FT but permission may be granted by Senate to study PT after 1 year. Applicants must normally hold appropriate 1st

degree. Requirs. are met by coursework in residence, examinations and dissertations. Refer to the *Commonwealth Universities Yearbook* for details.

1 year FT for candid. with Hons. degree/2 year PT for others – M.S. degree. 1 year FT/2 year PT – M.Law (for holders of B.Law of UM or equiv.), M.Pub. Health (for M.B.B.S. from UM or approved equiv. + 1 yr. med. exper.). 1 1/2 year FT/2 year PT – M.Modern Lang. Studies (for Hons. degree holder in rel. field; may req. exper.).

2 year FT – M.A. degree. 2 year FT (post–M.B.B.S.) M.Pathology, M.Psyc. Med. (+ 1 yr. approved clin. exper.), Doctor of Medicine (+ 2 yrs.' exper.). 2 year FT/3 year PT – M.B.A., M.Compar. Law, M.Econ., M.Ed. (for degree holders with DipEd or teacher qualif. + exper.), M.Engr. Sci., M.Phil., M.P.A., *Sarjana Syariah* (M.Islamic Law), *Sarjana Usuluddin* (M.Islamic Studies). Ph.D. degree (for holder of master's or degree in med. or dent.) taken by thesis after research in approved topic. Written, practical and oral exams may also be required.

UNIVERSITI PERTANIAN MALAYSIA (UPM)/UNIVERSITY OF AGRICULTURE, MALAYSIA, Serdang, Selangor, Malaysia. Telex: UNIPER MA 37454.

Description—Started as agr. voc. school and went through several transitions until univ. status granted in 1971. Previous Names: School of Agr. (1931-1947) and College of Agr. (1947-1971). Fully govt. funded and operates under supervision of Min. of Education. Focuses on agr. and animal sciences. Branch campus in Semenggok, Sarawak, and fishery stations in Kuala Terengganu and Port Dickson. Primary instruc. in *Bahasa Malaysia*; 25% of bach.'s degrees, 10% of dips., 95% of master's and Ph.D. courses taught in secondary lang. which is English. Enrollment (1984): 3,229 FT dip.; 3,942 FT bach.'s degree; 73 FT & 65 PT master's and Ph.D. students. Library: 200,000 books; 5,000 periodicals.

Calendar—(2 sems.) July-Nov., followed by 5 wks.' holiday; Dec.-May, followed by 8 wks.' holiday.

Faculty (1984)—18 FT and 1 PT Profs., 87 FT and 5 PT Assoc. Profs., 466 FT and 11 PT Lects., 124 Tutors, 21 FT and 1 PT Lang. Teachers. Qualifications: Ph.D.'s, 23%; master's, 57%; bach.'s degrees, 20%.

Selected University Affiliations (incl. research grants, visiting Profs., exchanges, consultants, scholarships & fellowships, staff trng., trng. awards, external exam services)—Australia: Aust.-Asian Univs. Cooperation Scheme, Univ. of Melbourne, Univ. of New England. Canada: Univ. of Guelph. Japan: Kagoshima Univ., Kyoto University. Philippines: Internatl. Research Rice Institute. United Kingdom: Imperial College of London, Nottingham Univ., Univ. of Aberdeen. United States: Asian Dev. Council of New York, Cornell Univ., Louisiana State Univ., Ohio Univ., Univ. of California, Univ. of Florida, Univ. of N. Carolina, Univ. of Rhode Island, Univ. of Wisconsin.

Grading Scale—Grades and credits given for courses. Final exams given during last 2 wks. of semester. Sem.-by-sem. eval. of courses instituted when sem. sys. introduced at UPM in 1973–1974. Most fac. and admin. then were Brit.-trained and not familiar with sem. sys. and the traditional custom of awarding majority of class ave. grades tended to produce students with lower aves. during initial yrs. of new grading system. Between 1976–1982, promotion to next sem. was based on cum. ave. of 1.5 for 0–20 credits, 1.7 for 21–40 credits, 1.9 for 41–60 credits and 2.0 for 61 or more credits. Distinc. (normally 3.5 G.P.A.) at graduation awarded to candids. whose overall performance in each curric. was considered by Senate to be of exceptional profic. and merit.

		1976–1982				From 1983–1984		
Grade	(Marks)	Points	Distrib. 1976–79	Distrib. 1980–82	Grade	(Marks)	Points	Distrib. 1983–84
A+	(95-100)	4.0	0%	0%	A	(80-100)	4.0	0.5%
A	(85-94)	3.5	0%	0%	B+	(75-79)	3.5	4.5%
B+	(75-84)	3.0	1%	4%	B		3.0	50.0%
B	(65-74)	2.5	38%	42%	C+	(55-64)	2.5	30.0%
C+	(55-64)	2.0	47%	45%	C	(50-54)	2.0	7.0%
C	(50-54)	1.5	8%	5%	D	(40-49)	1.5	5.0%
D	(45-49)	1.0	3%	2%	F	(0-39)	0.0	2.0%
F	(0-44)	0.0	3%	2%	–	–	–	–

In 1983–1984, scale and distrib. changed (see above). Promotion to next sem. is contingent on maintaining cum. grade ave. of 2.0. The student who earns less than 2.0 may be placed on probation for 1 sem. after which the cum. grade ave. has to be 2.0.

Official Records—Official complete or partial transcrs. issued by Deputy Registrar, Registrar's Dept. (Acad. Sect.). Other records should be considered suppl. for further clarification on details not mentioned. All corresp. should be addressed to Registrar's Department. Graduation scrolls avail. in Sept. following last sem. of enrollment. Temp. cert. of graduation avail. in interim. Syllabi avail. on request.

Minimum FT Program—12 credits per semester.

Entrance Requirements—

Degree Programs: SPM or equiv. with Pass in *Bahasa Malaysia* and STPM with either 2 subjs. passed at Prin. Level + Gen. Paper or 1 Prin. Level and 2 Subsid. Level subjs. passed + Gen. Paper or equivalent. Other requirs. incl. min. age of 17 yrs., profic. in *Bahasa Malaysia* and Engl., pre-requisite subjs. as prescribed by indiv. fac. and interviews as needed. Indiv. facs. will accept dips. from UPM, UTM and ITM for entrance to degree programs. Students enrolled in sci.-based dip. progs., who do very well in 1st yr., may be considered for transfer into 1st yr. of degree program.

Diploma Programs: SPM Div. One or Two with Pass in *Bahasa Malaysia* II or *Malayu* (unless from Sarawak or Sabah), Credit in Math and Sci. subjs., and for Agrbus. candids., Pass in Commerce. Exams recognd. by Univ. Senate may be accepted as substitute for above-mentioned qualifications. Indiv. facs. will accept certs. from PUO or other equiv. qualifs. for entrance to dip. programs.

Graduate Programs: Candids. must hold bach.'s degree or equiv. from UPM or other recognd. univs. or any other qualif. accepted by Univ. Senate. Ph.D. candids. must hold bach.'s degree with Distinc. or a master's degree and evidence of adequate trng. or ability to undertake proposed program. Candids. without master's degree must first enter master's prog. and at end of 2d sem. may be admitted to Ph.D. candidacy.

Degrees and Diplomas Offered—Note: Students holding relev. dip. qualifs. may complete bach.'s degree prog. in shorter period of time, depending on course exempt. granted. Master's degrees can be completed PT in 4-10 semesters. Ph.D. degree can be completed PT in 6–14 semesters.

Center for Extension & Continuing Education: 2–6 sem. M.S. (Extens. Ed.); 2–6 sem. M.S. (Dev. Communica.); 4–10 sem. Ph.D. (Extens. Ed.); 4–10 sem. Ph.D. (Dev. Communica.) degree.

Faculty of Agriculture: 6 sem. Dip.Agr. and Dip.Human Dev.; 8 sem. B.Agr. Sci.; 2–6 sem. M.Agr. Sci.; M.S.; 4–10 sem. Ph.D. degree.

Faculty of Educational Studies: 8 sem. B.Ed. (Agr. Sci.), B.Ed. (Home Sci.), B.Ed. (Phys. Ed.), B.Ed. (Guid. & Counsel.), B.Ed. (Tchg. *Bahasa Malaysia* as 1st Lang.), or B.Ed. (TESL); 2–6 sem. M.Ed.; 4–10 sem. Ph.D. degree.

Faculty of Engineering: 6 sem. Dip.Agr. Engr.; 8 sem. B.Engr. (Civ.) and B.Engr. (Agr.); 2–6 sem. M.Engr. (Agr.), M.S.; 4–10 sem. Ph.D. degree.

Faculty of Fisheries & Marine Science: 6 sem. Dip.Fish.; 8 sem. B.S. (Fish.); 2–6 sem. M.S. degree.

Faculty of Forestry: 6 sem. Dip.Forest.; 8 sem. B.S. (Forest.); 2–6 sem. M.S. degree.

Faculty of Resource Economics & Agribusiness: 6 sem. Dip.Agrbus.; 8 sem. B.S. (Res. Econ. or Agrbus.); 2–6 sem. M.S.; 4–10 sem. Ph.D. degree.

Faculty of Science & Environmental Studies: 6 sem. Dip.Comp. Sci. or Dip.Sci. with Ed.; 8 sem. B.Comp. Sci., B.S. (Environ.); B.S. (Hons.); B.S. with Ed. (Hons.); 2–6 sem. M.S.; 4–10 sem. Ph.D. degree.

Faculty of Food Science & Technology: 8 sem. B.Food Sci. & Technol.; 2–6 sem. M.Food Sci. & Technol. degree.

Faculty of Veterinary Medicine & Animal Science: 7 sem. Dip.Anim. Hlth. & Prod.; 10 sem. D.V.M.; 2–6 sem. M.V.M., M.V.S., M.S.; 4–10 sem. Ph.D. degree.

UNIVERSITI SAINS MALAYSIA (USM)/UNIVERSITY OF SCIENCE, MALAYSIA, Canselori, Universiti Sains Malaysia, Penang, Malaysia. Telex: MA 40254 USMLIB.

Description—Estd. 1969. Previous name: Univ. of Penang (1969–1971). Fully govt. funded and recognd. by Min. of Education. Emphasizes nat. and appl. science. Primary instruc. in *Bahasa Malaysia*; Engl. used 15% of the time, mainly in last yr. of sci. and profess. courses. Starting in 1985–1986, all courses will be taught in *Bahasa Malaysia* except for Med. Sci. courses, of which approx. 50% will be taught in English. Profic. in Engl. emphasized. Enrollment (1984): 5,066 FT; 1,121 PT undergrad. degrees earned; 57 FT, 55 PT grad. degree candidates. Approx. 13.5% of degree candids. are from other countries. Library: 350,000 vols. (6,000 current serial titles); 700 periodicals. Spec. collects. incl. Malaysian collects., media collects., oral hist. project.

Calendar—(2 sems) July-Nov., Dec.-April. Sem. consists of 14 wks. of tchg. with a 1 wk. mid-term break, 1 wk. of prep. for exams, 2-3 wks. of exams.

Faculty (1984)—17 FT Profs., 81 FT Assoc. Profs., 423 FT Lects., 101 FT and 11 PT Instrucs., 239 PT Tutors in Lang. Institute. Qualifications: Ph.D.'s, 41.7%; master's, 58.3%.

Selected University Affiliations (incl. curric. dev., consulting, research, staff exchanges, info. exchange, joint research and pubs., library dev., etc.)—Australia: The Flinders Univ. of S. Australia. United Kingdom: Univ. of Surrey. United States: Amer. Assn. of State Colleges & Univs., N. Illinois Univ., Ohio Univ., Univ. of Hawaii-Manoa, Univ. of Minnesota, Univ. of Montana.

Course Numbering/Unit System—Courses are numbered from 100 level through 400 level. Each level contributes to overall classif. of degree. Units assigned to each course are based on no. of hours spent in class/lab/field work. Ratio is 1 unit = 12 hrs. of lect./tutorial or x units of lab/field work where x is determined by each school.

Grading Scale—Marks (in percents) given for coursework and exams. Exams given at end of sem.; duration of exam usually corresp. to no. of units for course (e.g., 1 unit course = 1 hr. exam for max. of 3 hr. exams). Students given corresp. grade rather than marks earned, based on following scale: A (Distinc.) = 70% and above; B = 60%–69%; C = 50%–59%; D = 40%–49%; F (Fail) = 39% and below. Grade distrib. for courses usually corresp. to normal curve.

Distrib. of degrees may follow this pattern: First Class, 1%–2%; Second Class (Upper), 20%–30%; Second Class (Lower), 30%; Third Class, balance. Up to 70% of degree award calculated on last 2 years. Except for Med. Sci. degrees, undergrad. degrees awarded with corresp. quality classif. based on the following:

Aggregate	B.A. B.Comm. B.Mgt. B.S. B. Soc Sci.	B.Appl. Sci. B. Arch B.A. (Ed.) B.Ed. B.Engr./B.Tech. B.S. (Ed.) B.S. (HBP)	B. Pharm
70 & 100%	First Class	First Class	First Class
60–69	Second Class Upper	Second Class Upper	Second Class
50–59	Second Class Lower	Second Class Lower	
40–49	Third Class	Third Class	Third Class
40 & above	Pass Degree*	Not Applicable	Not Applicable
39 & below	Fail	Fail	Fail

*Students earning these degrees who have completed the max. candidature period and obtained overall ave. aggregate of min. 40% and accumulated 95–119 credit units are eligible for award of Pass Degree.

Official Records—Official transcrs. showing courses and grades issued by Registrar (Admis. & Records Sect.) and degrees are issued at convocation following graduation. School usually releases letter grades only, not percent marks. Syllabi avail. on request.

Minimum FT Program—10 units per sem. considered min. FT course load.

Entrance Requirements—SPM with at least Pass or equiv. in *Bahasa Malaysia* + 2 Prin. Passes + Pass in Gen. Paper or Prin. Pass + 2 Subsid. Passes + Pass in Gen. Paper on STPM or USM Matric. (incl. matric. from Med. Fac.). Also considered are Dips. from ITM and PUO in Appl. Sci. and ITM, PUO and UTM in HBP. Grad. entrance reqs. bach.'s degree with Second Class (Upper) Honors. Selec. facs. have spec. subj. and/or interview requirements.

Degrees, Diplomas and Certificates Offered—

School of Biology: 4 yr. (120 unit) B.S.; 1–3 yr. FT or 2–5 yr. PT M.S.; 2–6 yr. Ph.D. degree.

School of Chemistry: 4 yr. (120 unit) B.S.; 1–3 yr. FT or 2–5 yr. PT M.S.; 2–6 yr. Ph.D. degree.

School of Education: 4 yr. (150 unit) B.S. (Ed.), (144 unit) B.A. (Ed.), (140 unit) B.Ed.; 1–3 yr. FT or 2–5 yr. PT M.Ed. degree.

School of Engineering & Industrial Technology: 4 yr. (146 unit) B.Engr., (146 unit) B.Technol., (138 unit) B.Appl. Sci. (to be phased out); 1–3 yr. FT or 2–5 yr. PT M.S.; 2–6 yr. Ph.D. degree.

School of Housing, Building & Planning: 4 yr. (146 unit) B.S. (HBP); 5 yr. (183 unit) B.Arch. degree.

School of Humanities: 1 yr. Cert.Creat. Arts, Cert.Mass Communica., Cert.Ed. Technol.; 4 yr. (120 unit) B.A. and B.Communica.; 1–3 yr. FT or 2–5 yr. PT M.A.; 2–5 yr. Ph.D. degree.

School of Mathematics and Computer Science: 4 yr. (120 unit) B.S., (138 unit) B.Comp. Sci.; 1–3 yr. FT or 2–5 yr. PT M.S.; 2–6 yr. Ph.D. degree.

School of Medical Sciences: 3 yr. Dip.Med. Lab. Technol.; 5 yr. M.D. (Integrated Curric.). Note: Integrated curric. means clin. practice is integrated into full 5 yr. course instead of following the usual 3 yrs. of courses + 2 yrs. of clin. practice.

School of Pharmacy: 4 yr. (146 unit) B.Pharm. degree.

School of Physics: 4 yr. (120 unit) B.S.; 1–3 yr. FT or 2–5 yr. PT M.S.; 2–6 yr. Ph.D. degree.

School of Social Sciences: 4 yr. (120 unit) B.Soc. Sci. and B.Mgt.; 1–3 yr. FT or 2–5 yr. PT M.Soc. Sci.; 2–6 yr. Ph.D. degree.

Center for Educational Technology: 1 yr. Cert.Ed. Technology.

Other Programs: USM offers unique off-campus acad. prog. in which student may study at home or in nearby study center to earn B.A. (Hons.), B.S. (Hons.) or B.Soc. Sci. (Hons.). Student studies for up to 5 yrs. independently, using written materials, lect. synopses, tapes, and attends classes on campus for 3 wks. each November. In 6th yr. of study, student attends class fulltime. Students selected on basis of acad. merit, geog. distrib., ethnic balance and occupa. mix.

Future Plans—Between 1985–1990, USM plans to dev. schools (communica., comp. sci., mgt.); degrees (B.Med. Lab. Technol., B.Med. Record Mgt., B.Appl. Nurs., B.Med. Sci., B.Physiotherapy); and diplomas (Dip.Bldg., Dip.Bus. Studies, Dip.Cinematography & T.V., Dip.Comp. Sci., Dip.Creat. Writing, Dip.Ed., Dip.Engr., Dip.Lab. Technol., Dip.Med. Lab. Admin., Dip.Nurs., Dip.Sci., Dip.Physiotherapy, Dip.Translation, Dip.Wood Technol.).

UNIVERSITI TEKNOLOGI MALAYSIA (UTM)/UNIVERSITY OF TECHNOLOGY, MALAYSIA, Jalan Gurney, 54100 Kuala Lumpur, Malaysia. Telex: UTM 30090.

Description—Estd. 1925. Elevated to univ. status in 1975. Previous Names: Sekolah Teknik/Tech. School (1925–1940); Maktab Teknik/Tech. College (1940–1972); Institut Teknologi Kebangsaan/National Institute of Technol. (1972–1975). Fully govt. funded; operates under supervision of the Min. of Education. Major technol. univ. located in Kuala Lumpur but relocating to a new campus in Skudai, Johore in 1985 or 1986. Distinguished from other Malaysian univs. by organiz. of degree prog. and entrance requirements. All degrees and dips. fully recognd. by government. Primary instruc. in *Bahasa Malaysia*; Engl. used in 30% of courses in 3d yr. dip. and 4th and 5th yr. degree studies. Enrollment (1984): 6,576 FT undergrad.; 20 FT grad. students. Library: 126,600 vols. with emphasis on tech. subjs.; 3,533 periodicals.

Calendar—Sem. sys. (July-Nov., Dec.-Apr.) instituted 1982–1983. Prior to that, UTM followed Brit. pattern with yr.-long courses and exams at end of yr. and at end of degree course. Each sem. consists of 15 wks. of class with 1 wk. break at mid-point, 1 wk. of prep. and up to 3 wks. for exams.

Faculty (1984)—2 FT Profs., 75 FT Asst. Profs., 255 FT and 36 PT Lects., 357 FT Asst. Lects. A, 100 FT Asst. Lects. B. Qualifications: Ph.D.'s, 6.69%; master's, 58.3%.

Selected University Affiliations—United Kingdom: Univ. of Wales, Institute of Sci. & Technol., Cardiff, Wales (plan. & fac. exchange); Dept. of Physics, Univ. College of Swansea, S. Wales (plan., fac. exchange, external exam); Univ. of Strathclyde, Glasgow, Scotland (external examiners, transfer of dip. holders to 3d yr. of Strathclyde degree course).

Recognition by Professional Bodies—Various U.K. profess. bodies may grant exempts. for UTM dip. and degree holders (e.g., RICS grants exempt. for Intermediate Exams;

Institute of Quantity Survey. gives exempts. for First Exam for dip. holders and for Second Exam for degree holders).

Grading Scale—Prior to 1982–1983, grade scale as follows: A (Distinc.) = 75%–100%; B (Credit) = 65%–74%; C (Satis.) = 50%–64%; D (Weak Pass) = 40%–49%; E (Fail) = 30%–39%; F (Fail) = 0–29%. Students had to maintain D ave. (40%) to be promoted or awarded diploma.

Since sem. sys. was instituted in 1982–1983, courses which are assessed continuously and sem. exams (Nov. and Apr.) are graded as follows: A (4.0) = 85%–100%; A– (3.7) = 80%–84%; B+ (3.3) = 75%–79%; B (3.0) = 70%–74%; B– (2.7) = 65%–69%; C+ (2.3) = 60%–69%; C (2.0) = 55%–59%; C– (1.7) = 50%–54%; D (1.0) = 45%–49%; E (0.0) = 0–44%. Major exams still moderated by external examiners. Student must maintain ave. of C (2.0 or 55%) to be promoted or graduate.

Degrees classified with First Class; Second Class, Upper Div.; Second Class, Lower Div. Honors. Students who do not merit an hons. classif. will be awarded Pass Degree.

Author's Note: While grade distrib. info. was not provided, it is the author's exper. that UTM grading practices have been quite conservative. Seeking info. about class standing through references may be pertinent to decision making.

Official Records—Official records issued by Office of Registrar (Exams Sect.) only. Partial transcrs. avail. and transcrs. show grades for each course.

Minimum FT Program—Min. FT courseload is 12 credits per semester.

Entrance Requirements—The entrance requirements to all UTM progs. is the SPM. With the SPM, students may enter the 3 yr. dip. prog., the 5 yr. integrated degree prog. (3 yr. dip. + 2 yr. degree study) or the 5 yr. degree program. The requirements and degree structure vary by faculty. In the integrated degree prog., promotion to degree studies depends on perform. in dip. program. A small percent of students entering dip. only course may be selected on the basis of excellent perform. to change tracks and cont. for degree studies.

Dips. req. min. of Div. Two SPM with Credits in *Bahasa Malaysia* and Math or Add. Math and 1 other subject. Selec. cert. holders from recogd. polytechnics may join dip. course with up to 1 yr. of exemptions.

First degree/integrated degree courses req. min. of Div. Two SPM with Credits in *Bahasa Malaysia*, Math or Add. Math and 3 other subjs. designated by each department.

Postgrad. Dip. (Comp. Sci.) reqs. B.S. (incl. Math and Stat.), B.Engr., B.Mgt. (incl. Econ.) and Credits in *Bahasa Malaysia* and Math from SPM or its equivalent.

Master's degree (Comp. Sci.) reqs. B.Comp. Sci. (Hons.) or postgrad. Dip. (Comp. Sci.) from UTM or its equiv. qualif. and Credits in *Bahasa Malaysia* and Math from SPM or its equivalent.

Degrees and Diplomas Offered—All bach.'s degrees are min. 5 yrs. in length and req. 150–170 credits (incl. dip.); dips. req. 85–100 credits.

Faculty of Built Environment: 3 yr. Dips. in Arch., Quant. Surv. or Urb. & Region. Plan.; 5 yr. integrated (3 yr. dip. + 2 yr. degree course) Bach. in Urb. & Region. Plan. or Quant. Surv.; 6 yr. integrated (3 yr. dip. + 3 yr. degree course) Bach. of Arch. degree.

Faculty of Chemical Engineering & Natural Resources: 3 yr. Dip. in Chem. Engr. or Petrol. Engr.; 5 yr. B.Chem. Engr. or B.Petrol. Engr. degree.

Faculty of Civil Engineering: 3 yr. Dip.Civ. Engr.; 5 yr. B.Civ. Engr. degree.

Faculty of Electrical Engineering: 3 yr. Dip.Elec. Engr. (Communica. or Power); 5 yr. B.Elec. Engr. degree.

Faculty of Mechanical Engineering: 3 yr. Dip.Mech. Engr. or Dip.Mech. Engr. (Marine or Aeronau.); 5 yr. B.Mech. Engr., B.Mech. Engr. (Marine or Aeronau.) degree.

Faculty of Science: 3 yr. Dip.Sci. with Ed. (Physics, Math, Chemistry, Technical), Dip. (Comp. Sci.); 5 yr. integrated (3 yr. dip. + 2 yr. degree course) B.S. (Comp. Sci.), B.S. with Ed. (Physics, Math, Chemistry, Technical); 1 yr. postgrad. Dip. (Comp. Sci.); 1 yr. M. (Comp. Sci.) degree.

Faculty of Surveying: 3 yr. Dip.Land Surv., Dip.Valuation; 5 yr. B.Surv. (Land or Property Mgt.) degree.

Future Plans—UTM will move to new campus in Johor Bahru starting in 1985; the move will take several years. Expans. of courses will incl. progs. in instrumen., mgt., military engr., mining engr., prod. engr. and trng. of tchrs. in sci., particularly chem., math, physics, comp. sci. and tech. options.

UNIVERSITI UTARA MALAYSIA (UUM)/NORTHERN UNIVERSITY OF MALAYSIA, P.O. Box 56, Alor Setar, Kedah, West Malaysia. Telex: MA 45052 UTAMAS. Location: BB. Darulaman Jitra, Kedah, West Malaysia.

Description—Estd. 1983 (first intake of students in 1984). Most recently estd. univ. in Malaysia. Fully govt. funded and operates under jurisdiction of Min. of Education. Primary instruc. in *Bahasa Malaysia*; Engl. used as second lang. in 15% of courses. Enrollment (1984): 335 FT degree students. Library: 1,316 books; 80 periodicals. Collect. concentrates on Bus. Admin. & Acctcy., Econ. & Pub. Admin., Engl. Lang. & Fndns., Islamic Civilization.

Calendar—Sem. sys. with 1st sem. begin. in June/July and yr. ending in Feb. to April.

Faculty (1984)—1 Prof., 12 FT and 2 PT Lects., 3 FT and 9 PT Lang. Tchrs., 9 FT and 1 PT Tutors.

Grading Scale—Courses assessed by ongoing tests, quizzes, assigns., term papers and final exams which can account for 40% to 60% of final grade. Grade scale is from 0 (low) to 100 (high) with 40 the lowest passing mark.

Official Records—Official transcrs. and partial records avail. and issued only by Registrar or Sr. Asst. Registrar. First grads. expected in April 1988. Degree scrolls should be issued within 6 mos. of graduation. Syllabi avail. on request.

FT Program—Min. 12 sem. credits. Students must ave. at least 16 credits/sem. to graduate in 4 yrs. as 130 credits are reqd. to earn degrees estd. to date. UUM is first univ. to req. and give credit for 6 hrs. of co-curric. activities. Objective is to expose students to leadership roles, instill sense of discipline and respons. and give broader exposure to others. Co-curric. activities can incl. ambulance service, brass band, commun. service, military trng., music and Red Crescent (Red Cross).

Entrance Requirements—STPM with min. of 2 Passes at Advd. Level and 1 at the Subsid. Level *or* dip. from ITM with min. grade ave. of 2.7 for which up to 35 credits will be given in transfer *or* cert. from PUO (no transfer credit).

Degrees Offered—

School of Economics & Public Administration: 4 yr. B.Econ., B.Pub. Admin., both req. 24 wks. min. of practicum in a pub. organization.

School of Management & Accountancy: 4 yr. B.Bus. Admin., B.Acct., both req. 4 wks. min. of practicum in a priv. organization.

Future Plans—New facs. will be developed in comp. sci., ed., indus. arts and law.

Private University

UNIVERSITI ISLAM ANTARABANGSA (UIA)/INTERNATIONAL ISLAMIC UNIVERSITY, Jalan Universiti, Petaling Jaya, Selangor, Malaysia. Telex: ISLAMU MA 37161.

Description—Estd. 1983 under the Company's Act. Priv. univ. cooperatively funded by Malaysian govt. and govts. of several other Islamic nations. Profess. in scope and Islamic in character. Admits intl. student body. Offers broad curric. but keeps Islamic thought and culture as basis of acad. programs. UIA degrees recognd. by govt. on a par with degrees from natl. universities. Primary instruc. in Engl.; Arabic used as second lang. in approx. 20% of courses. Enrollment (1984): 268 degree candids. (23% from other countries). Library: 17,625 books; 480 periodicals.

Calendar—(2 sems.) 1st Monday of July to end of Oct.; 1st Monday of Dec. to end of March.

Faculty (1984)—2 FT Profs., 6 FT and 2 PT Sr. Lects., 19 FT and 17 PT Lects., 40 FT Asst. Lecturers. Qualifications: Ph.D.'s, 10%; master's, 30%.

University Affiliations—UIA affil. with Islamabad Islamic Univ. in Pakistan and Madinah Islamic Univ. in Saudi Arabia.

Grading Scale—Pass: A (4.0) = 75–100; B+ (3.5) = 70–74; B (3.0) = 65–69; C+ (2.5) = 55–64; C (2.0) = 45–54. Provisional Pass: D (1.0) = 40–44. Fail: F (0.0) = 0–39.

Official Records—Official records and partial transcrs. issued by Acad. & Student Affairs Office. Degree scrolls expected to be issued within 3 mos. of graduation. Syllabi avail. on request.

Average FT Program—FT students enrolled ave. of 6 courses per semester.

Entrance Requirements—

STPM, A Level, Jr. College Dip. or any other equiv. qualif. and must have passed 2 subjs. at Credit or Prin. Level or 1 subj. at Credit or Prin. Level and 2 subjs. at Subsid. or Pass Level. A Pass in Gen. Paper or equiv. is desirable but may be waived in special cases where, in Admission Bd.'s opinion, candid. has passed well in other subjs. in STPM, A Levels or Jr. College.

Special entrance requir. from recognd. institutions considered by indiv. facs. include:
Faculty of Economics–Dip. in any field rel. to economics.
Faculty of Law –Dip.Acctcy. or Dip.Pub. Admin.

Degrees Offered—

Faculty of Economics: 4 yr. B.Econ. and B.B.A.
Faculty of Law: 4 yr. B.Law.

Future Plans—Dev. of six Faculties: Arch., Basic Sci., Ed., Engr. and Appl. Sci., Human Sci., Med. and Dentistry.

Chapter VI

Other Tertiary-Level Education

There is a wide variety of postsecondary institutions in Malaysia. While not classified as universities, some offer university level instruction but most offer technical and vocational instruction to prepare students for employment. Some institutions are funded and supervised by the government or by government-supported agencies; many are private.

To operate, most private schools must have permission (i.e., a license) from the government. The system of licensing (recognizing) schools and their programs is very simple yet understanding which schools must obtain a license (recognition) and what that license (recognition) means is very complex. Before exploring nonuniversity tertiary education in Malaysia, an explanation of the system by which schools are recognized is in order.

Recognition of Schools by the Ministry of Education

Accreditation, as it is known in the United States, does not exist in Malaysia. Indeed, not all schools fall into categories which need to be recognized. Asking whether or not a school is "accredited" or "recognized" may bring an unclear or incomplete reply.

It is safe to say that schools that are **directly** funded by the government and are a part of the national system of education are "recognized." Some government agency (for example, the Ministry of Education, Ministry of Health, Ministry of Agriculture) supervises the school, approves the curriculum, maintains the facilities and recognizes the credentials earned there. Included in this category are the universities, Institut Teknologi MARA (ITM)/MARA Institute of Technology, the Teacher Training Colleges, the Polytechnics, the schools of allied health, the Institutes of Agriculture and government-sponsored continuing education or in-service training schools, such as Institut Tadbiran Awam Negara (INTAN)/National Institute of Public Administration.

The rest of the schools fall into two categories: 1) privately-sponsored schools which must register with the Ministry of Education, and 2) schools which, by definition, are not required to be registered (licensed or recognized) with the Ministry of Education.

1. Private Schools Which Must Register with the Ministry of Education

All private schools which meet a certain definition must register with the Ministry of Education and obtain a license to operate. Licensing in Malaysia does not, however, bear any resemblance to accreditation as it is known in the United States. It is more similar to the requirements of various states in the U.S. for opening private proprietary schools.

The government and business and industry in Malaysia, like that in the United Kingdom (the country after which Malaysian education is patterned), recognize for employment purposes many external qualifications. The system of studying at private schools (or through professional organizations) to gain additional education, which is measured by examinations external to the national or formal education system of the country, is common in Malaysia. Schools offer preparation for a recognized examination, but usually the course of study by itself, without the external examination, has no standing when the student seeks employment or promotion. The Ministry of Education of Malaysia may allow a school to operate (that is, give the school a license) and may recognize the external qualification which may be successfully earned as a result of studying at the school but may not recognize the school's program of study as such. Knowing that a school is licensed gives no indication of the quality of the academic program. Knowing which external qualification was earned may be a better quality indicator.

A private school may offer its own internal diploma or certificate for the course completed but, in most cases, the student could not use that credential to seek employment in the government (nor could the student use it to transfer into the national stream of education). Generally, the qualification needed for employment in most government jobs is either a credential earned from the national stream of education or a recognized external qualification.

Most of the external qualifications that are earned in Malaysia are from the United Kingdom; a few come from Australia, and some are being developed in Malaysia. Information about the requirements for each qualification may have to be obtained from the organization administering the examination. For more information about the United Kingdom's external qualification system, two references are recommended: *The United Kingdom of Great Britain and Northern Ireland: A Study of the Educational System of the United Kingdom and a Guide to the Academic Placement of Students in Educational Institutions in the United States* by Stephen H. Fisher and *British Qualifications: (15th ed.). A Comprehensive Guide to Educational, Technical, Professional, and Academic Qualifications in Britain*.

Responsibility for registering the schools lies with the Registrar of Schools in each state. The Registrars, in turn, report their registered schools to the Deputy Registrar General in the Ministry of Education. The frequency with which the registration guidelines are reviewed and the currency of the registration lists vary by state.

Registration guidelines specifically exclude expatriate schools, religious schools, those under the supervision of ministries other than Education, and those in which music, dancing, martial arts, tailoring, computer programming and management studies are taught. Registration guidelines for private schools specifically cover kindergartens; primary schools; secondary schools; and commercial, technical and correspondence schools. (Note: Education is expanding more rapidly than the regulations which may govern it, as evidenced by the absence of a category under which the new private schools offering U.S.–patterned education fall although the schools received licenses to operate.)

To be licensed, schools must meet broad philosophical objectives. The law stipulates the responsibilities of the Registrar of Schools in each state in particular when deciding whether a place can be registered as a school. Location, class size, facilities and matters pertaining to health and sanitation are given emphasis and the Registrar normally seeks the assistance of the local health and fire departments to submit observations and recommendations before any decisions are made. No less important are aspects of management and personnel, courses to be conducted, types of examinations for which students will be prepared, fees to be charged, and so on. The law also requires members of the management and teaching staff to be registered.

Licensing does not include self study, review by peers and continuous review of standards as does accreditation in the United States. Rather, licensing is established to set minimum criteria; once met, renewal of the license is usually pro forma, although government officials may inspect the site at any time. Government staffing levels, however, may not permit regular visiting of private schools.

2. Schools Not Subject to Registration with the Ministry of Education

By definition, some organizations which offer classes are not required to register because their primary purpose is to be an organization, not a school. An example is the Malaysian Institute of Management (MIM) which is a professional organization. MIM offers a wide variety of management training courses, seminars and in-service training programs. As the course offerings vary from year to year, courses are considered professional development or continuing education and the "Institute," therefore, is not required to be licensed. Schools which offer management courses are not to be confused with schools which offer commerce/commercial courses.

The Malaysian government provides money to at least one foundation which, in turn, sponsors schools. The MARA (Majlis Amanah Ra'ayat/Council of Trust for Indigenous Peoples) Education Foundation has a history of sponsoring/developing schools which offer education programs outside the main stream of education. Over time, some of the programs have been incorporated into the national system. Some remain outside the system. In any case, this particular foundation enjoys a special status in the country and is not required to apply for permission for its schools to operate. Thus, for example, Maktab Sains MARA/MARA Science College (also called MARA Community College), sponsored by the MARA Foundation, is not required to be registered/licensed, although, indirectly, it receives its funding from the government.

The terms *Kolej* ("college") and *Institut* (institute) do not have clear definitions and are, unlike the term "university," of little or no help in determining level of instruction or type of recognition. Junior Science Colleges, for instance, are secondary-level schools. Many postsecondary institutions, both public and private, utilize the word "College" in their names. Institutes funded by government sources may fall under the jurisdiction of the Ministry of Education and offer degree level work (e.g., Institut Teknologi MARA [ITM]/

MARA Institute of Technology), may be private and offer only postsecondary technical training (e.g., Institut Teknologi Federal [ITF]/Federal Institute of Technology) or may be a professional organization offering in-service or professional training classes but not requiring licensing (e.g., MIM). The "recognition status" of each school is listed in the Description in each profile.

Government-Supported Diploma-Granting Institutions

Institut Teknologi MARA (ITM)/Institute Technology MARA and Kolej Tunku Abdul Rahman/Tunku Abdul Rahman Kolej (TAR College) are government-supported, tertiary level diploma-granting institutions. ITM is unique in that it is administered under the jurisdiction of the Ministry of Education Higher Education Division but is not degree-granting.

Note: Within the profiles, acronyms and initialisms for other institutions, professional bodies or examinations may appear. The reader is directed to Appendix E for a list of these acronyms and the institution, professional body or examination represented.

INSTITUT TEKNOLOGI MARA (ITM)/MARA INSTITUTE OF TECHNOLOGY, Shah Alam, Selangor, Malaysia. Telex: MA 38671.

Description—Founded in 1956 as Dewan Latihan RIDA/Rural and Indus. Dev. Authority (RIDA) Training Center in Petaling Jaya to provide short courses in commerce and admin. of cottage indus. for rural English-speaking youth. In 1965, renamed Maktab MARA/MARA College when MARA Act passed. Curric. designed to train profess. and semi-profess. *bumiputras* (indigenous Malays) who would become equal partners with other ethnic groups in commerce and industry. Renamed (1967) Institut Teknologi MARA and relocated (1972) to present site in Shah Alam. Operated under juris. of MARA Fndn. until 1976 when student pressure forced govt. to pass ITM Act of 1976 which put ITM under Higher Ed. Div. of the Min. of Ed. with a separate supervising council. Funded 95% by government.

ITM is a unique institution in Malaysia. Courses cross over lines of several levels of education. Majority of courses are identified as univ. level in content. ITM was not intended to be univ. when founded, and probably will not be designated as univ. in foreseeable future.

Primary instruc. in *Bahasa Malaysia* with Engl. used 25%-45% of time. Enrollment (1984): 1,132 FT degree; 13,449 FT and 55 PT dip.; 289 FT and 29 PT cert.; 1,498 other students. Enrollment projected to go to 55,000 with branches. Library: 245,686 books; 2,404 periodicals. Spec. collects. in Law, Malay Entrepren. Dev., Datuk Dr. Arashad Ayub speeches.

ITM has nine estd. branches, with three branches projected in Kedah, Penang, and Negri Sembilan. Some courses offered at branches are prep. for advd. courses held at main campus. Goal is to make each branch autonomous and self-supporting. Maintaining regular contact with main campus is essential to keep abreast of rapid expansion of academic program. Branches and offerings are listed below.

Sabah Branch Campus, Kuala Menggantal, Sabah.
Estd. 1973. Enrollment (1985): 839 FT students.
Diplomas Offered: Acctcy., Bus. Studies, Pub. Admin., Pre-Commerce, Pre-Sci., Stenography.

Sarawak Branch Campus, Batu Lintang, Kuching, Sarawak (temp.).
Estd. 1973. Enrollment (1985): 765 FT, 307 PT students.
Diplomas Offered: Acctcy., Bus. Studies, Pre-Commerce, Stenography.

Perlis Branch Campus, Arau, Perlis.
Estd. 1974. Enrollment (1985): 1,826 FT; 199 PT students.
Diplomas Offered—Acctcy., Bank. Studies, Bus. Studies, Planting Indus. & Mgt., Pre-Dip. in Engr., Pub. Admin., Sci., Stenography.

Terengganu Branch Campus, Sura Hujung, Dungun, Terengganu.
Estd. 1975. Enrollment (1985)—1,968 FT; 185 PT students.
Diplomas Offered—Acctcy., Bank. Studies, Bus. Studies, Pub. Admin., Stenography.
Short Courses Offered: Front Office Recept., Housekpg. & Waiting.

Johor Branch Campus, Taman Indah, Segamat, Johor (temp.).
Estd. 1984. Enrollment (1985)—597 FT students.
Diplomas Offered: Acctcy., Bus. Studies, Stenography.

Melacca Branch Campus, Jalan Hang Tuah, Melacca.
Estd. 1984. Enrollment (1985): 792 FT students.
Diplomas Offered: Acctcy., Bank. Studies, Bus. Studies, Pub. Admin., Stenography.

Pahang Branch Campus, Jengka, Pahang.
Estd. Jan. 1985. Enrollment (1985): 431 FT students.
Diplomas Offered: Acctcy., Bank. Studies, Bus. Studies, Comp. Sci., Pub. Admin., Stenography.

Perak Branch Campus, Bandar Sri Iskander, Perak.
Estd. Jan. 1985. Enrollment (1985): 710 FT students.
Diplomas Offered: Acctcy., Bank. Studies, Bus. Studies, Comp. Sci., Pre-Comp. Sci., Pub. Admin., Stenography.

Kelantan Branch Campus, Kem Kijang, Kelantan.
Estd. July 1985. Enrollment (1985): 185 FT students.
Diplomas Offered: Acctcy., Bank. Studies, Bus. Studies, Stenography.

Calendar—(2 sems.) July-Nov., Jan.-May. Vacation periods in Dec. and June used for prac. trng. where appropriate.

Faculty—1,475 FT (16 Prin. Lects., 213 Sr. Lects., 199 Spec. Sr. Lects., 968 Lects., 79 Asst. Lects.). 724 PT Lecturers. Qualifications: Ph.D.'s, 2%; master's, 36%; bach.'s, 47%; other degrees, 15%. Active fac. dev. program. Young Lect. Scheme sends ITM grads. overseas to complete degree prog. in exchange for 7 yrs.' teaching. One in six fac. sent annually. Fac. may also be released for 6 mos. to 1 yr. to work on projs. in local industry.

University Affiliations—MUCIA/Indiana Univ., Ohio Univ., State Univ. of New York, Texas Consort. for Internatl. Ed., Univ. College of Univ. of Maryland. See U.S. College- and University-Sponsored Programs in Malaysia.

Grading Scale/Credits—A (80–100) = 4.00, 4– (75–79) = 3.67 (Pass with Distinc.); B+ (70–74) = 3.33, B (65–69) = 3.00, B– (60–64) = 2.67 (High Pass); C+ (55–59) = 2.33, C (50–54) = 2.00 (Pass), C– (47–49) = 1.67; D+ (44–46) = 1.33, D (40–43) = 1.00 (Fail core subj. but Pass non-core subj.); E (30–39) = 0.67; F (1–29) = 0.33 (Fail). X = Absent or incompl. with permission; Y = Absent without permission; L = Transfer of credit or exemption.

G.P.A.'s calculated same as in U.S. (1 Credit = 1 hr. of lect. per week for 1 sem. or equiv. in some other form of instruction.) Spec. prizes awarded for acad. excellence. On sem.-by-sem. basis, Dean's Cert. is awarded for outstanding performance; Director's Distinc. Award given to student with outstndg. performance on all sem. exams.

Co-curric. activities reqd. of registered students. Those enrolled for 3 yrs. must participate/pass 4 sems. of activities while those registered in 2 1/2 yr. courses must attempt/pass 3 sems. of activities. Prac. exper. reqd. of most dip. programs.

Official Records—Official transcrs. showing grades and credits for each course taken issued by Registrar's Office only. Dips. avail. 3 mos. after graduation. Syllabi avail. on request.

Entrance Requirements—Applics. must be *bumiputras* at least 16 yrs. of age. For requirs., see Degrees, Diplomas, Certificates and Programs Offered. In some cases, substan. work exper. in rel. area may be accepted in lieu of STPM (if reqd.), providing applic. holds SPM with Credits in necessary subjects. Demand for admis. far exceeds places avail.; ITM accepts only 1 out of 10 applicants.

Degrees, Diplomas, Certificates and Programs Offered—Entrance requirs. and length for ITM progs. vary. The following list outlines progs. in descending order of acad. levels of programs. Where avail., ITM codes are incorporated in this list of abbreviations: E = entrance requirement; L = length of program (1 yr. = 2 sems.); O = other notes relev. to credential's status.

Codes for Schools of MARA Institute of Technology (ITM)

SA	= Sch. of Accountancy	SHCM	= Sch. of Hotel & Cater. Management
SAL	= Sch. of Admin. & Law	SLIS	= Sch. of Library & Info. Science
SAS	= Sch. of Appl., Sciences	SMC	= Sch. of Mass. Comm.
SAPS	= Sch. of Arch., Plan. & Surv.	SMCS	= Sch. of Mathematical Science & Computing
SAD	= Sch. of Art & Design	SSS	= Sch. of Secretarial Science
SBM	= Sch. of Bus. & Mgt.		
SE	= Sch. of Engineering		

SPM Subject Codes

01	= *Bahasa Malaysia*	12	= History
02	= English I (Syll. 122–Communication)	13	= Art
03	= English II (Syll. 121)	14	= Surveying Studies
04	= Modern Mathematics	15	= Geometrical & Bldg. Drawing
05	= Additional Mathematics	16	= Building Architecture
06	= General Science	17	= Principles of Accounts
07	= Additional Gen. Science	18	= Commerce
08	= Physics	19	= Geometrical & Mech. Drawing
09	= Chemistry	20	= Engineering Workshop Practice
10	= Biology	21	= Health Science
11	= Geography	22	= Religious Knowledge

STPM Subject Codes

01	= *Bahasa Malaysia*	09	= Physics
02	= General Paper	10	= Chemistry
03	= English	11	= Biology
04	= Mathematics	12	= Geography
05	= Pure Mathematics	13	= History
06	= Additional Mathematics	14	= Art
07	= Applied Mathematics	15	= Statistics
08	= Economics		

Graduate Degrees

Executive Master's in Business Administration/EMBA (SBM)
E = Hons. degree + 5 years' exper. in gen. management.
L = 60 Credits, offered 22 Sats., 9:00 to 4:00 over 2.5 years.
O = Offered by Ohio Univ. since July 1984 by Ohio Univ. faculty.
Master of Arts (Econ. Ed.): Offered by Ohio Univ. (1976–1980). Discontinued.
Master of Science (Econ.): Offered by Univ. of Kentucky (1976–1980). Discontinued.

Postgraduate Diplomas/Certificates

Diploma in Library Science (SLIS)
E = Degree holders only (may open later to Advd. Dip. holders).
L = 1 year.
Diploma in Systems Analysis (SMSC)
E = Degree or Advd. Dip. in Accounting, Economics, Math, Management or Statistics.
L = 1 year.
Certificate in Executive Development (SBM)
E = Degree holders only.
L = 3 months.
O = Considered in-service training or continuing education.

Bachelor's Degree

Bachelor of Business Administration (SBM)
E = ITM Diploma.
L = Minimum 2 years.
O = Offered by Ohio Univ. since July 1975 by Ohio Univ. and selected ITM faculty.

Two and One-Half Year Advanced Diplomas (Post-Diploma)

Accountancy (SA)
E = ITM Dip. with 2.5 G.P.A.; those with less than 2.5 G.P.A. must have 2 years' work experience.
Civil Engineering (SE) or
Electrical Engineering (opt. in Electronics or Power) (SE) or
Land Surveying (SE) or
Mechanical Engineering (SE)
E = ITM Dip. with 2.5 G.P.A.; those with G.P.A. between 2.3–2.5 must have 2 years' work experience.

Two Year Advanced Diplomas (Post-Diploma)

Architecture (SAPS)
E = Dip. + 1 year's work exper. except Dip. in Arch. with 2.75 G.P.A. or 2.65 G.P.A. at 8th sem. *or* Dip. in Arch. from UTM with 2 years' work exper. *or* BS (HBP) from USM with 2 years' work experience.
Business Studies (Marketing & Insurance) (SBM) or
Law (SAL) or
Statistics (SMSC)
E = ITM Dip. with 2.5 G.P.A.; Dip. + 2 years' work exper. for G.P.A. under 2.5.
Estate Management (SAPS) or
Quantity Surveying (SAPS)
E = ITM Dip. with 2.5 G.P.A.; Dip. + 1 year's exper. for G.P.A. between 2.3–2.5 *or* UTM Dip. with 2 years' experience.

Town & Regional Planning (SAPS)
E = ITM Dip. with 2.5 G.P.A.; Dip. + 1 year's work exper. for G.P.A. between 2.3–2.5 *or* UTM Dip. with 2 years' exper. *or* Degree from USM with 1 year's experience.

FOUR YEAR ADVANCED DIPLOMA (POST-SPM)
Business Administration (Translation) (SBM)
E = SPM with Credit in 01, 02, 04 and 2 add. subjects.

ONE YEAR POST-ITM DIPLOMA
Art Teachers Diploma (SAD)
E = ITM Dip. in Art & Design (except Photography).
O = Represents completion of specialization like that at Specialist Teacher Training College.

THREE YEAR DIPLOMAS REQUIRING STPM FOR ENTRANCE
Law (SAL)
E = 2 Prin. Passes on STPM and Credit in 02 on SPM or SPM with Credit in 02 and 4 other subjects + 4 years' related work experience. Candidate must be sponsored by employer.
Library Science (SLIS)
E = 1 Prin. + 2 Subsid. Passes (excl. Art) + Pass in 02 on STPM or Credit in 02 on SPM *or* SPM with 3 Distinctions + Credit in 01 and 02 + 4 years' work exper. in library + entrance test + sponsorship of employer.
Mass Communication (opt. in Broadcasting, Journalism, Public Relations & Advertising) (SMC)
E = 2 Prin. Passes incl. 01 and 2 Subsid. Passes incl. 02 on STPM + Credit in 02 on the SPM *or* SPM with 5 Credits incl. 01 and 02 and 4 years' work exper. and sponsorship of employer.

FOUR YEAR DIPLOMAS REQUIRING THE SPM FOR ENTRANCE
Actuarial Science (SMSC)
E = Credit in 04, 05 and 2 add. subjects + Credit in 01/Pass 02 *or* Pass in 01/Credit in 02.
O = Exemption or admission to second year possible, based on previous education.
Architecture (SA)
E = Credit in 01 + Pass in 02; Credit in 1 subject from each of following subject groups— 04/05, 06/07/08/09, 11/12/14, 13/15/16/19.
O = Includes practical training during holidays.
Art & Design (opt. in Fashion, Fine Art, Fine Metal, Graphics, Indus. Design, Pottery & Ceramics, Textiles) (SAD)
E = Credit in 01 and 13 + 2 add. subjects (beginning July 1986, Credit in 3 add. subjects required).
Building (SAPS)
E = Credit in 01, Pass in 02 and at least 1 Credit from each of following subject groups—04/05, 06/07/08/09, 11/12/13/14/15/16/17/18/19 + 1 other Credit.
Food Technology (SAS) or
Industrial Chemistry (SAS)
E = Credit in 04, 09 + 1 science subject + Pass in 01, 02, 05.
Microbiology (SAS)
E = Credit in 04, 10 and 1 science subject + Pass in 01, 02, 05.
Wood Technology (SAS)
E = Credit in 04, 08 + 1 science subject + Pass in 01, 02, 05.

THREE YEAR DIPLOMAS REQUIRING SPM FOR ENTRANCE

Accountancy (SA)
E = Credit in 01 or 02, 04 + 2 add. subjects.
Animal Health Production (Discontinued after 1979).
Banking Studies (SBM) or
Business Studies (SBM)
E = Credit in 01, 02, 04 + 2 add. subjects.
Chef Training (SHCM)
E = Credit in 01 and 02 + 1 add. subject. Work exper. required.
Computer Science (SMSC)
E = See 4 year Dip. in Actuarial Science.
O = Starting in 1986, Dip. in Comp. Sci. candid. may complete UKM degree in comp. sci. with 2 add. years of degree study.
Executive Secretaryship (SSS)
E = Credit in 01, 02 and 3 add. subjects + Pass in 04 *or* ITM Dip. in Stenography with 3.0 G.P.A. + 1 year's experience.
Fisheries (Discontinued after 1978).
Forestry (Discontinued after 1978).
Civil Engineering (SE) or
Electrical Engineering (opt. Electronics, Instrumentation or Power) (SE) or
Land Surveying (SE) or
Mechanical Engineering (opt. in Manufacturing) (SE)
E = Credit in 04, 05 + 2 phys. sci. subjects + Pass in 01, 02 *or* have completed Pre-Dip. in Engineering or Cert. from PUO.
Mining Engineering (SE) (Discontinued).
Estate Management (SAPS)
E = See 4 year Dip. in Building.
Hotel & Catering Management (SHCM)
E = Credit in 01, 02 and 1 add. subject + Pass in 04.
Institutional & Catering Management (SHCM)
E = Credit in 01, 02 and 1 add. subject + Pass in 04 and 06.
Interior Design (SAPS)
E = Credit in 01, Pass in 02 and 1 from each of following subject groups—04/05, 06/07/08/09, 11/12/14, 13/15/16/19.
Investment Analysis (SBM)
E = See 4 year Advd. Dip. in Business Administration.
Music (SAD)
E = Credit in 01 and 4 other subjects + interview.
Photography (SAD)
E = Credit in 01, 13 + 1 add. subject with priority given to 02, 04, 06.
Planting Industry & Management (SAS)
E = Credit in 02, 04, 10 and 1 add. science subject + Pass in 01.
Public Administration (SAL)
E = Credit in 01, 02, 04 + 2 add. subjects.
Quantity Surveying (SAPS)
E = See 4 year Dip. in Building.
Rubber & Plastic Technology (SAS)
E = See 4 year Dip. in Wood Technology.
Statistics (SMSC)
E = See 4 year Dip. in Actuarial Science.

Textile Technology (SAS)
E = See 4 year Dip. in Wood Technology.
Tourism Administration (SHCM)
E = Credit in 01, 02, 04 and 2 add. subjects.
Town & Regional Planning (SAPS)
E = Credit in 01, Pass in 02 + 1 subject from each of following subject groups—04/05, 06/07/08/09, 11/14, 13/15/19.
O = Includes 6 months' compulsory practical training.

Diploma Programs of Fewer than Three Years Requiring SPM for Entrance
Credit Management (SBM)
E = Pass in SPM.
L = 1 year.
O = Candid. must be sponsored by employer and have min. 5 years' work exper. in Credit Management, Finance or Accounting.
Science (SAS)
E = Credit in 04, 08, 09, 10 + Pass in 01 and 02.
L = 2 1/2 years.
O = Preparatory course for transfer to Facs. of Sci., Med., and Agr. of local university. Exemption may be granted for 1st year univ. course for this Diploma.
Stenography (SSS)
E = Credit in 01, 02.
L = 2 years.

Diploma Preparation Programs (Varying Entrance Requirements and Length)
Certificate in Town & Regional Planning (SAPS)
E = SPM with Credit in 04; Pass in 02.
L = 2 years.
O = Student with 3.0 G.P.A. may be selected to move from this Cert. prog. to Dip. in Town & Regional Planning but with no exemptions.
Pre-Commerce (SBM)
E = Grade C SRP.
L = Up to 1 year.
O = Preparation in math and economics offered mostly in Sabah and Sarawak.
Pre-Diploma in Engineering (SE)
E = SPM with Credit in 04 and 2 phys. sci. subjects + 2 add. subjects. Preference given to candids. with Add. Math.
L = 6 months.
O = Credential will be offered temporarily, mostly in Sabah and Sarawak, as preparation for Dip. program.
Pre-Diploma in Law (Discontinued) or
Pre-Diploma in Mass Communications (SMC) (Discontinued) or
Pre-Diploma in Stenography (Discontinued)
L = 6 months.
O = Mainly ESL.
Pre-Science (SAS)
E = SPM with at least Div. 3 and Pass in science subject.
L = Up to 2 semesters.
O = Offered mainly in Sabah and Sarawak.

IN-SERVICE TRAINING/CONTINUING EDUCATION PROGRAM (Entrance Requirements and Length Vary)

Certificate in Insurance (SBM)
- E = Credit in 01 and 02 (preference given to candids. with Pass in Math).
- L = 10 months + 2 months' practical training.
- O = FT or PT in-service training.

Certificate in Computer Programming (SMSC)
- E = Credit in 01, 02, 04 + 1 add. subject.
- L = 6 months.
- O = PT in-service training.

Certificate in Hotel & Restaurant Service (SHCM)
- E = SRP.
- L = 6 months—Assistant Cook; 3 months—Front Office Worker, Waiter or Housekeeper.
- O = Terminal programs.

Certificate in Travel Operations (SHCM)
- E = SPM with Credit in 01, 02 *or* SRP with Credit in 01 and 02 + 2 years' experience.
- L = 6 months.
- O = Developed with assistance of International Air Transport Assn. and Universal Federation of Travel Agencies Assn. in Geneva, Switzerland.

Extension Education Program: Offers evening courses.

Islamic Studies Center

Language Center: Offers 10 foreign languages.

Malaysian Entrepreneurial Development Center (MEDEC): Offers short courses to develop entrepreneurial skills.

Preparation for the following exams is done at ITM but the exams are administered by external examination bodies through the Examination Syndicate. For requirements for these qualifications, see the respective references on those countries.

MALAYSIAN PROFESSIONAL QUALIFICATIONS

Institut Akauntan Umum Malaysia/Malaysian Association of Certified Public Accountants (Stream III)
- E = ITM Dip. in Accounting.
- L = 3 years.

OTHER EXTERNAL PROFESSIONAL QUALIFICATIONS

Association of Certified Accountants, U.K. (SA)
- E = SPM with Credit in 02 or 03 and 04 + 2 STPM Prin. Passes.
- L = 4 years.

Australian Insurance Institute (SBM)
- E = SPM with Credit in 02, 04 or 2 add. subjects.
- L = 3 years.

Chartered Insurance Institute, U.K.
- E = SPM with Credit in 02 or 03 and 04 or 06 + 3 add. subjects.
- L = 3 years.

Chartered Institute of Transport, U.K.
- E = See Association of Certified Accountants.
- L = 3 years.

Institute of Chartered Secretaries and Administrators, U.K. (SAL)
E = 2 STPM Prin. Passes + 3 SPM Credits. Either option must incl. English.
L = 4 years.
Institute of Cost & Management Accountants, U.K. (SA)
E = See Association of Certified Accountants.
L = 4 years.
Institute of Marketing, U.K. (SBM)
E = 5 SPM Credits incl. 02 or 03 and 04 + 1 year's exper. *or* 1 STPM Prin. Pass and 4 add. SPM Credits incl. 02 or 03 and 04.
L = 3 years.

Future Plans—Development of 35 dips., 24 advd. dips., 3 bach.'s degrees, 8 postgrad. dips. and 7 M.S. programs between 1986–1995, pending Min. of Ed. approval. Details can be obtained from ITM Registrar as programs begin.

KOLEJ TUNKU ABDUL RAHMAN/TUNKU ABDUL RAHMAN COLLEGE (TAR COLLEGE), Jalan Genting Kelang, P.O. Box 10979, 50932 Kuala Lumpur, Malaysia. Cable Address: TARKOLEJ-KUALALUMPUR.

Description—Estd. 1969. Privately owned but 50% govt. funded postsecondary institution. Licensed to operate by Min. of Education. Conducts local school exams and overseas profess. exams. Primary instruc. in Engl.; *Bahasa Malaysia* used as second lang. in 10% of courses. Enrollment (1984): 2,963 FT dip. (323 designated as candids. for U.S. degree; see below); 1,031 FT & 43 PT cert. students. Library: 90,000 books; 550 periodicals. Spec. collect. of 8,800 vols. of Chinese classics.

Calendar—Pre-University Course: (3 terms) Jan.-Apr., Apr.-July, Aug.-November. Diploma/Certificate Courses: (2 terms) July-Nov., Dec.-April.

Faculty (1984)—6 Prin. Lects., 27 Sr. Lects., 111 FT & 145 PT Lects., 1 Sr. Instruc., 11 Instrucs. and 9 Tutors. Qualifications: Ph.D.'s, 7.5%; master's, 21.25%; bach.'s degrees, 71.25% (many fac. with bach.'s degrees also hold postgrad. dips. from Malaysian or British universities).

University Affiliations—Since 1978, a Tripartite Assn. has existed among Campbell Univ. (Buies Creek, North Carolina), New Univ. of Ulster (N. Ireland) and TAR College, whereby a Center for Arts and Science was estd. under the School of Arts & Science of TAR College which administers the B.S. degree prog. for Campbell University. The curric. has been modified so that the science course is more applied. Selec. students registered for Dip. in Science simultaneously prepare for the B.S. (Campbell Univ.) degree exams. Degree awarded by Campbell is recognd. by Malaysian government as equal to Pass Degree. (Author's Note: All courses taught by TAR College fac. who serve as adjunct fac. for Campbell University. No residence or add. coursework is reqd. by Campbell.)

Grading Scale—Course exam held in Nov. and annual exam held in Apr. or May. Weight of courses determined by number of lectures/tutorials per week. Scale for dip./cert. courses is: A (Distinc.), B (Good), C (Credit), D (Pass), E (Redeemable Failure), F (Fail). Distrib. of grades follows normal curve with 5%–10% earning A and equal number earning F. Dips. granted with Merit or Distinc. awarded to less than 10% of class. Book Prize awarded to selec. students in each class.

Grade scale for Campbell Univ. B.S. course is: Passing – A (70%–100%), B (55%–69%), and C (40%–54%); Compen. Pass – D (35%–39%); Fail – F (0–34%); S = Satisfactory; U = Unsatisfactory.

Official Records—Official records issued by Asst. Registrar for Exams and Grad. Records or by Heads of Schools or Department. Grades and syllabi avail. for each course. Dip.

awarded 4–6 mos. after graduation. The Campbell University transcript is issued by Campbell University.

Entrance Requirements—

Form VI: SPM Div. One or Two.

Cert. in Computer Programming & Information Processing (CPIP): SPM with Credit in Engl. and Math.

Cert. in Technology: SPM Div. One or Two with Credit in Engl. or *Bahasa Malaysia*, Math and any 2 from variety of sci. or tech. subjects.

Dip. in Science: SPM Div. One or Two with 3 Credits incl. Engl. and Math + STPM with 2 Prin. Passes in 1 sitting from various math or sci. subjects.

Dip. in Commerce: SPM Div. One or Two with 3 Credits incl. Engl. and Math + 2 STPM with 2 Prin. Passes in 1 sitting.

Dip. in Technology: SPM Div. One or Two with 4 Credits incl. Engl. and Math + STPM with 2 Prin. Passes in 1 sitting in Math, Physics or Cert. in Technology. (No exempt. given for cert. in dip. course although there is slight overlap in coursework. Cert. has been used as basis of admis. to several U.K. and U.S. univs. with exempt. or transfer credit given.)

Diplomas and Certificates Offered—

School of Arts and Science: 3 yr. Dip in Sci. with majors in 2 of following subjs.– biol., chem., comp. sci. (info. process.), math, physics. Selec. students taking this course simultaneously register for B.S. degree course conducted in co-op. with TAR College, New Univ. of Ulster, Campbell Univ., with degree awarded by Campbell Univ. (see University Affiliations). Campbell Univ. degree used as basis of admis. to several Malaysian univs. for postgrad. dip. and advd. degree study.

School of Business: 3 yr. Dip. in Commerce. External profess. exams conducted and recognd. by Malaysian govt. are – Finan. Acct. (CACA), Bus. Mgt. (ICSA), Cost & Mgt. Acct. (ICMA), MACPA (1985). 2 yr. Cert. in Acct. with Bus. Comp. (begun 1985).

School of Technology: 3 yr. Dip. in Technol. with opt. in Bldg., Electron. Engr., Mat. Engr. and Mech. & Auto. Engineering. Engr. Council, U.K., external profess. exams conducted and recognd. by Malaysian govt. for Electron. Engr., Mech. & Auto. Engr., Mat. Engineering. 2 yr. Cert. in Technol. with opt. in Arch., Bldg., Civ. Engr., Electron. Engr., Mat. Engr., Mech. & Auto. Engr., Quant. Surveying. (The cert. is not yet recognd. by Malaysian govt. but is acceptable to private industry for employ. purposes.) Several British univs. have considered the dip. the basis for admis. to advanced degrees in sci. or engineering.

School of Pre-University Studies: 2 yr. STPM/HSC.

Extra-Mural Studies Department (School of Arts & Sci.): 1 yr. FT or 1 1/2 yr. PT Cert. in Comp. Prog. & Info. Processing.

Recognition by Professional Bodies—

Dip. in Technol. holders are granted various levels of recognition by IERE (London), IEE (London), IME (England).

Dip. in Technol. (Engr.) holders are exempt. from Pt. I Exam of Engr. Council, U.K. and may sit for Final Exam, Pt. II. Candids. who pass exam are recognd. as Grad. Engrs. in Malaysia, U.K., and British Commonwealth and qualify as Chrtrd. or Profess. Engrs. after 2 yrs. of prac. experience.

Dip. in Technol. (Bldg.) holders are exempt from all but 1 subj. of Final Exam, Pt. II of CIOB, U.K. Those passing Final Exam, Pt. II, are eligible for admis. to Grad. Membership of CIOB, U.K.

Dip. in Technol. (Mat. Engr.) holders are exempt from 3 of 6 subjs. on Final Exam, Part II of Institute of Metallurgists, U.K.

Cert. in Technol. holders are eligible for admis. as student members and may sit for exams of IEE (London); IERE (London); RICS (England); CIOB, U.K.

Future Plans—Dip. and cert. courses in Engr., Comp. Sci. & Bus. Mgt. Studies will be developed.

Polytechnics

There are currently five government-funded polytechnic schools in Malaysia which operate under the supervision of the Technical and Vocational Education Division of the Ministry of Education. The schools and their state locations are: Politeknik Alor Star (PAS)/Alor Star Polytechnic (Kedah), Politeknik Batu Pahat (PBP)/Batu Pahat Polytechnic (Johore), Politeknik Kota Bharu (PKB)/Kota Bharu Polytechnic (Kelantan), Politeknik Sultan Haji Ahmed Shah (PSAS)/Sultan Haji Ahmed Shah Polytechnic (originally called Politeknik Kuantan/Kuantan Polytechnic) (Pahang), Politeknik Ungku Omar Ipoh (PUO)/Ungku Omar Polytechnic, Ipoh (Perak). Two more polytechnics are projected to open soon (Politeknik Kuching and Politeknik Port Dickson).

The polytechnics train students to become technicians who are the mid-level manpower link between management and production workers. This group holds positions such as foreman, technician, technical assistant, technical instructor, and technical officer. While many of the polytechnic courses are thought of as terminal, about 4% of the students in past years and more currently about 10% of the graduates from polytechnics continue for diploma studies. A few from selected programs will continue for degree studies in local and foreign universities. It is anticipated that this pattern of moving from one qualification to another may be easier in the future as the places in diploma and degree courses expand.

The courses are conducted in *Bahasa Malaysia* except for instruction in English Language and consist of lecture, practical work in workshops and laboratories, tutorials, projects, visits to industry and industrial training. If the same course is taught at more than one polytechnic, the same curriculum and syllabus is followed. Equal weight is given to theory and practical work, although approximately 40% of the time is spent in lecture and 60% spent in workshops or laboratories. Certificate courses are twenty-seven months in length and involve a six-month industrial training period between the first and second years of school. To date, only two polytechnics (PUO and PSAS) offer diploma courses which are from thirty-nine to forty-eight months in duration.

The entrance requirement for a polytechnic is completion of Form V and attainment of a specified standard on the *Sijil Pelajaran Malaysia* (SPM)/Malaysian Certificate of Education (MCE) or the *Sijil Pelajaran Vokesynal Malaysia* (SPVM)/Malaysian Certificate of Vocational Education.

The curriculum for each course is fully prescribed and the student has no options. Class attendance is required. A student must meet at least 85% of the classes held including attendance at workshop/labs to be eligible to sit for the final year examination. See Table 6.1 for the academic plan.

Table 6.1. Academic Plan for Polytechnics

Dept.	Specialization	Length in Mos.	PAS	PBP	PKB	PSAS	PUO	PPD	PKC
Civil	Architecture	27	P	P	–	E	E	–	–
	Build. Serv.	27	P	–	–	–	–	–	P
	Construction	27	C	C	C	C	C	C	C
	Highway	27	–	–	P	–	–	–	–
	Land Survey	27	P	–	–	E	E	–	P
	Pub. Wk./Hydrl.	27	P	–	P	–	E	–	–
Commerce	Acctcy. (Dip.)	39	P	–	–	E	E	P	P
	Bus. Studies	27	–	–	–	–	E	P	P
	Data Process.	27	–	–	–	E	P* →	P	–
	Secre. Sci.	27	–	P	P	E	–	–	P
	Prct. Accts.	27	–	P	P	E	–	–	P
Elec.	Communications	27	–	–	–	–	P* →	P	–
	Computer Tech.	27	–	–	–	E	E* →	P	–
	Electronics & Commun.	27	C	C	C	C	C	C	C
	Inst. & Contr.	27	–	P	–	E	E	–	P
	Power	27	C	C	C	C	C	C	C
Mech.	Agriculture	27	–	–	P	–	–	–	–
	Air Cond./Refrig.	27	–	–	P	–	E	P	P
	Auto. Diesel	27	–	–	P	E	E	P	P
	General	27	C	C	C	C	C	C	C
	Plant	27	–	P	–	–	–	P	P
	Production	27	–	P	–	E	E	P	–
Process	Chem./Petrochem.	27	–	P	–	–	–	–	–
	Drafting	27	–	–	–	–	–	P	–
	Food Tech.	27	–	–	–	E	–	–	–
	Quant. Survey.	27	P	–	–	–	–	–	–
	Timber Tech.	27	–	–	–	–	–	–	P
	Twn./Cntry. Pln.	27	P	–	–	–	–	–	–
Other	Marine (Dip.)	48	–	–	–	–	E	–	–
	Printing	27	–	–	P	–	–	–	P
	Textiles	27	–	–	P	–	–	–	–

Abbreviations: C = Core Course, E = Established Specialization, P = Proposed Specialization; PAS = Politeknik Alor Star; PBP = Politeknik Batu Pahat; PKB = Politeknik Kota Bharu; PSAS = Politeknik Sultan Haji Ahmed Shah (formerly Kuantan Polytechnic); PUO = Politeknik Ungku Omar Ipoh; PPD = Politeknik Port Dickson; PKC = Politeknik Kuching.
*Indicates course will be taught at PUO and then moved to PPD when PPD opens.

The first year calendar for certificate courses consists of four three-month terms (July-September, October-December, January-March, April-June) followed by industrial training from July to December. The second year consists of three three-month terms (January-March, April-June, and July-September).

Progress in courses is measured by tests on theory. Continuous assessment is made throughout the course on practical and laboratory work. Final examinations are administered at the end of each academic year and are graded on the following scale: A = 80%–100%, B = 65%–79%, C = 50%–64%, D = 40%–49%, F = 0–39%. All first-year courses and second-year Diploma in Accountancy examinations are administered in May/June. Second-year Certificate, third-year Diploma in Accountancy and second- and third-year Marine Engineering Diploma examinations are administered in September. Records are issued by the Student Affairs Unit or the Head of the Department. Records showing courses and grades are available and incomplete transcripts will be issued to the student. Certificates/diplomas are available approximately one year after graduation. Syllabi are available on request.

All certificates and diplomas are recognized by government departments and agencies and by industry in Malaysia. The Certificate of Civil Architecture is recognized by the Persatuan Akitek Malaysia/Malaysian Association of Architects and the Lembaga Akitek Malaysia/Malaysia Board of Architects. The Diploma in Accountancy gives candidates exemptions from examinations in the following professional bodies: Foundation examination of the Association of Certified Accountants (U.K.), Section of Foundation examination of the Institute of Cost and Management Accountants (U.K.), Foundation I of the Malaysian Association of Certified Public Accountants, Foundation A of the Institute of Co-op Auditors (Malaysia). First and Second Class Pass on the Marine Engineering Diploma gives exemptions for Part A and Second Class Pass exempts for Part B when sitting for the Certificate of Competency of the Marine Department.

Polytechnic Profiles

Within each profile acronyms for other institutions, professional bodies or examinations may appear. The reader is directed to Appendix E for a list of these acronyms and initialisms and the institution, professional body or examination represented.

POLITEKNIK ALOR STAR (PAS)/ALOR STAR POLYTECHNIC, c/o Sekolah Menengah Teknik Batu 2, Jalan Sungai Korok, Alor Star, Kedah.
Description—Estd. 1984. Enrollment (1984): 121 cert. students.
Faculty (1985)—11 Lects., 3 Asst. Lects., 6 Instructors. Qualifications: Degrees, 60%; dips., 10%; 30% from Tech. Tchr. Trng. College.
Diplomas and Certificates Offered—See Table 6.1.

POLITEKNIK BATU PAHAT (PBP)/BATU PAHAT POLYTECHNIC, Sekolah Menengah Teknik, Jalan Tun Abdul Razak, Johor Bahru, Johor.
Description—Estd. 1983. Enrollment (1984): 236 cert. students.
Faculty (1985)—14 Lects., 7 Asst. Lects., 5 Instructors. Qualifications: Degrees, 50%; dips., 30%; 20% from Tech. Tchr. Trng. College.
Certificates Offered—See Table 6.1.

POLITEKNIK KOTA BHARU (PKB)/KOTA BHARU POLYTECHNIC, Bunut Susu, Pasir Mas, Kelantan.
Description—Estd. 1985. Enrollment (1985): 107 cert. students.
Faculty (1985)—9 Lects., 3 Asst. Lects., 3 Instructors. Qualifications: Degrees, 50%; dips., 25%; 25% from Tech. Tchr. Trng. College.
Certificates Offered—See Table 6.1.

POLITEKNIK SULTAN AHMED SHAH (PSAS)/SULTAN HAJI AHMED SHAH POLYTECHNIC, Semambu, Kuantan, Pahang, Malaysia.
Description—Estd. 1976. Previous Name: Politeknik Kuantan/Kuantan Polytechnic (until 1986). Enrollment (1984): 28 FT dip.; 1,690 FT cert. students. Library: 10,000 books; 23 periodicals.
Faculty (1984)—91 FT & 7 PT Lects.; 30 FT Instructors. Qualifications: Master's, 1.5%; bach.'s degrees, 38.5%.
Grade Distribution—A = 4%; B = 41%; C = 42%; D = 13%.
Diplomas and Certificates Offered—See Table 6.1.

POLITEKNIK UNGKU OMAR IPOH (PUO)/UNGKU OMAR POLYTECHNIC, IPOH, Jalan Dairy, Ipoh, Perak, Malaysia.
Description—Estd. 1969. Enrollment (1984): 112 FT dip., 929 FT cert. students. Library: 25,000 books; 150 periodicals.
Faculty (1985)—100 Lects., 59 Asst. Lects., 44 Instructors. Qualifications: Master's, 2.5%; bach.'s degrees, 50%. Asst. Lects. are dip. holders; instrucs. are from Tech. Tchr. Trng. College.
Estimated Grade Distribution—A = Very Good (10%); B = Good (20%); C = Above Ave. (30%); D = Ave. Pass (30%); F = Fail (10%).
Diplomas and Certificates Offered—See Table 6.1.

POLITEKNIK KUCHING (PKC)/KUCHING POLYTECHNIC—Projected.
Projected Diplomas and Certificates—See Table 6.1.

POLITEKNIK PORT DICKSON (PPD)/PORT DICKSON POLYTECHNIC—Projected.
Projected Diplomas and Certificates—See Table 6.1.

Postsecondary Institutions

Most government agencies and many private industries expect potential employees to have earned credentials on their own which will better prepare them for the positions available. There are many tertiary-level private institutions in Malaysia that offer preparation for those examinations; however, it is not the school preparation so much as the external examination results that will qualify a student for employment or promotion. By far, the majority of the examinations available are British examinations such as those developed for City and Guilds of London Institute, Institute of Cost and Management Accountants, London Chamber of Commerce and Industry, and so on. (See Appendix E.)

Students may also prepare as external candidates for local examinations at some schools. Local private schools may offer their own certificates or diplomas for courses completed but the certificates or diplomas will not gain recognition unless the school has worked with external professional examining bodies to gain equivalency agreements. Recognition in Malaysia of private school preparation is growing as professional and external examining bodies gain more experience with the private schools. It is important to maintain contact with the private schools in order to keep abreast of the equivalency agreements.

There are also government-sponsored and private agencies which offer tertiary-level in-service training but without the external examinations. Programs completed at these institutions such as the Institut Tadbiran Awam Negara (INTAN)/National Institute of Public Administration and the Institut Pengurusan Pendidikan Negara (IPPN)/National Institute of Educational Management are, for the most part, considered as on-the-job training, orientation or continuing education courses.

Schools Which Prepare Students for External Examinations

Within each profile below, acronyms and initialisms for other institutions, professional bodies or examinations may appear. The reader is directed to Appendix E for a list of these acronyms and the institution, professional body or examination represented.

AKADEMI VANTO/VANTO ACADEMY, Jalan 223, Section 14, P.O. Box 22, Petaling Jaya, Selangor, Malaysia.

Description—Estd. 1964. Licensed by Min. of Education. Privately funded. Prepares students for local exams as priv. candids. and for external exams from U.K. and internal diplomas. Primary instruc. in *Bahasa Malaysia*; Engl. used in 22% of classes. Enrollment (1984): 35 FT dip., 799 FT and 265 PT cert. students. Library: 2,618 books; 24 periodicals.

Calendar—(3 terms) Jan.-Apr., Apr.-July, Aug.-November.

Faculty (1984)—2 FT Lects., 19 FT and 12 PT Asst. Lects., 7 FT Teachers. Qualifications: FT fac. members–Ph.D.'s, 7%; bach.'s degrees, 67%. PT fac. members–bach.'s degrees, 100%.

Grading Scale—Because courses taken prepare students for external or pub. exams, the following grade scale is used for internal exams only for Forms III, IV and V: Passing – A1 = 71–100, A2 = 66–70, C3 = 61–65, C4 = 56–60, C5 = 51–55, C6 = 46–50, C7 = 41–45, P8 = 36–40; Failing – P9 = 0–35.

Grades for internal exams in Form VI (preparation for STPM, A Levels, Arch. Drftsmnshp.) are: Passing – A = 70–100, B = 60–69, C = 55–59, D = 50–54, E = 40–49; Failing – F = 0–39. Exams are given for O and A Levels in June and for STPM, O and A Levels in November.

Official Records—External exam results avail. only if student has received results from exam body. Forecast results avail. from school and issued by Principal's office.

Entrance Requirements—
SPM: Grades A, B, C in prev. yrs. of school.
STPM: Div. One, Two or Three SPM Certificate.
GCE A Level: Div. One, Two or Three SPM Certificate.
LCCI: SPM/GCE.
Arch. Drftsmnshp.: SPM with Math and Art.
Private Secretary: SPM.
GCE O Level: Form IV Pass.
Three-in-one course preparing for GCE A Level/LCCI High. Stage Grp. Dip.Acct./Vanto Dip.Acct.: SPM with good background in Engl. and Commerce or Acct.

Diplomas and Programs Offered—
3 years: ACA, ICMA, ICSA.
2 years: Institute of Bus. Admin.; Institute of Mktg. (Part I, 1 yr. and Part II, 6 mos.; Dip., 6 mos.);
1.5 years: Assn. of Acct. Techs. (Part I, 12 mos.; Part II, 6 mos.).
1 year: Prep. for LCCI Dip.Acct./Econ./Costing; 3-in-1 course for A Level, LCCI Dip.Acct. and Vanto Dip.Acct.; Institute of Admin. Mgt. (Part I, 6 mos.; Part II, 6 mos.).

BEDFORD COLLEGE, P.O. Box 1511, Jalan Pantai Baru, Kuala Lumpur, Malaysia. Location: 76A, Jalan Brickfields (near Lido Theatre), Kuala Lumpur, Malaysia.

Description—Member of the Bedford Grp. of Colleges. Offers home study (correspondence) engineering courses with practicals offered during vacation periods. Prepares students for exams of Institute of Automotive Mech. Engineers (Aust.), CGLI (U.K.), Institute of Builders (U.K.), Institute of Motor Indus. (U.K.), Institute of Road Transport Engrs. (U.K.) and Society of Engineering (U.K.).

GANELLA KOLEJ/GANELLA COLLEGE, P.O. Box 2628, G.P.O., Kuala Lumpur, Malaysia. Cable Address: GANELLA COL, KUALA LUMPUR. Location: Pertama Complex, Jalan Tuanku Abdul Rahman, Kuala Lumpur, Malaysia.

Description—Estd. 1982. Privately funded private college licensed by Min. of Education. Prepares for selec. external exams of Aust., U.K. and U.S. Primary instruc. in English. Enrollment (1984): 10 in Univ. of London. External L.L.B.; 250 in all other programs. Library: 3,300 books; 100 periodicals.

Calendar—(3 terms) Feb.-Apr., Apr.-Aug., Aug.-November.

Faculty (1984)—3 Admins., 23 Lecturers. Qualifications: Ph.D.'s, 4%; master's, 4%; bach.'s degrees, 92%.

Recognition by Professional Bodies—Univ. of London External L.L.B. recognd. by Bar Council of Malaysia.

Grading Scale—S. Aust. Matric. Exam admin. in Nov. and graded 0 to 500 with 295 the min. considered for matriculation. Distrib. of results (1984) follows: 400 plus, 19.6%; 360–400, 19%; 340–360, 15.9%; 300–340, 17.8%; less than 300, 27.6%. Info. on grade distrib. of other exams not avail. as progs. are new. GCE A Level and Univ. of London L.L.B. admin. in June while U.S. Advd. Placement admin. in May.

Official Records—Official Ganella records issued only by Principal or Vice Principal. However, since all courses are prep. for external exams, exam results will come from respective exam bodies.

Entrance Requirements—
U.S. Advd. Placement: SPM with Credits in Science and English.
GCE A Levels (U.K.): SPM or GCE O Levels with 3 Credits incl. English.

S. Aust. Matric. Exam: SPM.

Univ. of London External L.L.B.: STPM or GCE A Levels with 2 Prin. Passes with min. of 1 C and 1 E or 2 D's.

Programs Offered—

4 year: Univ. of London External L.L.B.

1.5 year: GCE A Levels (U.K.).

1 year: U.S. Advd. Placement; S. Aust. Matric. Exam (in connection with Sr. Secondary Assess. Bd. of S. Aust.).

Future Plans—First year U.S. transfer program.

INSTITUT LATIHAN TEKNIK/TECHNICAL TRAINING INSTITUTE, P.O. Box 11016, Kuala Lumpur, Malaysia. Telex: MA 32970. Location: 67, Lorong Scott, Off Jalan Brickfields, Kuala Lumpur, Malaysia.

Description—Estd. 1967. Previous Name: Automobile Engineering Institute (1967-1973). Licensed by Min. of Education. Privately funded. First non-govt. tech. institute. Member of the Bedford Grp. of Colleges and affiliated with the Institut Teknologi Federal/Fed. Institute of Technology. Prepares students for internal dips./certs. but mostly for external profess. exams of U.K., Aust. and a few from Malaysia. Graduates work mainly in tech. jobs in priv. sector. Official lang. is *Bahasa Malaysia*. Primary instruc. in English. Enrollment (1984): 105 FT dip., 215 FT cert. students. Library: 1,000 vols.; 500 periodicals.

Calendar—(4 terms) Jan.-Mar., Apr.-June, July-Sept., Oct.-December.

Faculty (1984)—FT: 3 Instrucs., 7 Asst. Instructors. Qualifications: Bach.'s degrees, 20%; balance hold diploma.

Grading Scale—Exams given every 6 wks.; final written exams administered at culmination of 2- or 3-yr. program. Marks given in percentages as follows: Passing – A = 75%–100%, B = 55%–75%, C = 34%–54%; Failing – D = 0–33%. Other grade scales may be noted on transcripts.

Dips. awarded on following classification: Grade I, Upper Class (3 Distincs. – 1 from each subj. group, no failures, no grade lower than B); Grade I, Lower Class (2 Distincs. from diff. subj. groups, 5 Credits from all 3 subj. groups, no failures); Grade II, Upper Class (1 Distinc., 4 Credits, 3 Passes); Grade II, Lower Class (1 Distinc., 3 Credits, 3 Passes); Grade III (Pass all subjs.).

Official Records—Grades given for each course. Full and partial transcrs. issued to students by Head of School or Director of Admin. & Student Affairs. Syllabi avail. on request. Dips. issued 3–4 mos. after graduation.

Average FT Program—Certs. req. 16 courses; dips. req. 24.

Entrance Requirements—Certificate Courses: SRP. Diploma Courses: SPM or STPM. Students generally follow same course but award of cert. or dip. depends on entrance qualification. Dip. course generally acknowledged as having higher status.

Diplomas and Certificates Offered—Dips. and certs. offered in each prog. below. The credential received depends on entrance qualif. of student (see Entrance Requirements). Courses prepare students to sit for following external exams: 1. AIAME (Aust.), 2. AMIMI (U.K.), 3. AMIRTE (U.K.), 4. CGLI, 5. Chartered Institute of Building (U.K.), 6. LLPPKK/NITTCB (Malaysia), 7. Society of Engr. (U.K.), 8. SPVM (Malaysia).

3 year programs: Auto. Engr. (1, 2, 3, 4, 5, 6, 8), Elec. Engr. (4, 7), Electron. Engr. (4, 6, 7), Mech. Engr. (7).

2 year programs: Arch. Drftsmnshp. (4, 6, 7), Auto. Tech. (1, 2, 3, 4, 6, 8), Elec. Tech. (4, 7), Electron. Tech. (4, 6, 7), Gen. Bldg. (4, 5, 6), Mech. Tech. (7).

1.5 year program: Radio & T.V. (4).
1 year program: Weld. (Arc & Gas).
Future Plans—Branch campus will be opened soon.

INSTITUT TEKNOLOGI FEDERAL (ITF)/FEDERAL INSTITUTE OF TECHNOLOGY, P.O. Box 129, Petaling Jaya, Selangor, Malaysia. Telex: FIT MA 32970. Main Campus: Campus Taynton View, Jalan Bee Eng Satu, 6 1/2 Mile, Jalan Cheras, Kuala Lumpur, Malaysia.

Other Study Locations: 49A & 51A, Jalan 52/12, Merdeka Square, Petaling Jaya; 49B & 51B, Jalan 52/18, Merdeka Square, Petaling Jaya; 12, Jalan Pantai Baru, Kuala Lumpur; 30, Jalan Liku, Off Jalan Bangsar, Kuala Lumpur; College House, Lorong Abdul Samad, Off Jalan Brickfields, Kuala Lumpur.

Description—Estd. 1968. Licensed by Min. of Education. Privately funded priv. tech. school with 6 locations. Member of Bedford Grp. of Colleges; Engineers Registration Bd. (U.K.), and Brit. Assn. of Commercial & Indus. Education. Affil. with Institute of Engineers & Technicians (London). Conducts some local and many overseas profess. exams. Primary instruc. in English. Enrollment (1984): 5,000 FT dip. (5% foreign); 100 FT cert. students. Library: 10,000 books; 30 periodicals.

Calendar—(4 terms) June-Aug., Sept.-Nov., Dec.-Feb., March-May.

Faculty (1984)—10 Sr. Lects., 81 Lects., 43 Instrucs., 9 Asst. Instructors. Qualifications: Master's, 1%; bach.'s degrees, 60%; dips., 39%.

University Affiliations—Univ. of Hull, U.K. (3 mo. cert. course, primarily extens., for dip. holders); Univ. of Strathclyde, U.K. (1 yr. suppl. course for dip. holders that, with dip., will give 2 yr. total exempt. to students cont. on for degree in rel. fields at Univs. of Aberdeen, Brunel, Leeds).

Recognition by Professional Bodies—

Civil, elec., electron., mech. engr. courses may be considered by SIET for exempt. from Assoc. Membership exam.

ITF students who have completed 2 yrs. of dip. course are granted exempt. from 3 of 4 papers of Society of Engr. (London) exam.

ITF dips. are accepted by Institute of Engr. (Malaysia) as entry qualif. to sit for Part I exam.

ITF Dip.Civ. Engr. qualifies applic. for Tech. membership in Construction Surveyors' Institute (TnCSI) and exempt. from Group One subjs. of CSI Licentiate exam, and for exempt. from Group One subjs. of CIOB Licentiate exam (approved by Bd. of Bldg. Ed.).

ITF Dip.Motor & Engr. Final Dip. holders granted Assoc. Grade One of Institute of Automotive Mech. Engr. of Aust. and Dip.Motor & Diesel Engr. holders granted exempt. from part of Institute of Motor Indus. (London) exam.

Grading Scale—Each course assessed by terminal exam on scale of 0 (low) to 100 (high) with 50 the lowest passing mark. Grades and estim. distrib. (in paren.): 75%–100% (15%); 50%–74% (70%); 0–49% (15%). Exams conducted in Apr., Aug. and Dec. and are graded by a central panel of examiners. Dip. grade based on Final Dip. exams. Grades and estim. distrib. (in paren.) for Final Dip. exams: A (Distinc.) = 75–100 (15%); B (Credit) = 60–74 (35%); C (Pass) = 40–59 (35%); D (Fail) = 0–39.5 (15%).

Final Dips. granted with one of following classifs.: Grade I, Upper Class; Grade I, Lower Class; Grade II, Upper Class; Grade II, Lower Class; Pass. Students from School of Engr. who get less than 50% in theory but pass in pracs. are awarded the Prac. Diploma.

Official Records—Official records showing courses and grades issued by Head of School, Director of Studies or Registrar. Partial transcr. avail. for student leaving without

completing prog. only if student is in last 6 mos. of study. Dip. issued to student approx. 3 mos. after graduation. Syllabi avail. on request.

Average FT Program—8 courses/year. Subjs. studied one at a time in modules of 6–12 wks. Exams given at end of each module.

Entrance Requirements—

Form V. Students must be 16 to 25 yrs. Preference given to SPM, MICSSUE, SPVM or STPM holders when applics. exceed places in class. Exempt. may be given for STPM in engineering courses.

Diplomas and Certificates Offered—

School of Architectural Draftsmanship: 3 yr. Dip.Arch. Engr.; 2 yr. Dip.Arch. Drftsmnshp., Dip.Arch. Tech.

School of Automotive Engineering: 3 yr. Dip.Auto. Engr.; 2 yr. Dip.Auto. Tech.

School of Building Engineering: 3 yr. Dip.Bldg. Engr.

School of Civil Engineering: 3 yr. Dip.Civ. Engr.; 2 yr. Dip.Civ. Tech.

School of Computer Studies: 13 mo. Cert.Comp. Prog. & Info.Proces. to prepare for CGLI course 747.

School of Electrical Engineering: 3 yr. Dip.Elec. Engr.; 2 yr. Dip.Elec. Tech.

School of Electronic Engineering: 3 yr. Dip.Electron. Engr.; 2 yr. Dip.Electron. Tech.

School of Mechanical Engineering: 3 yr. Dip.Mech. Engr., Dip.Prod. Engr.; 2 yr. Dip.Mech. Drftsmnshp., Dip.Mech. Tech.

School of Quantity Surveying: 3 yr. Dip.Quant. Surveying.

Future Plans—Expans. of main campus phys. facil. between 1985–1987. Planning for third stage of development in process.

INSTITUT TEKNOLOGI JAYA/JAYA INSTITUTE OF TECHNOLOGY, 35, Jalan Simpang, Overseas Union Garden, Klang Road, Kuala Lumpur, Malaysia.

Description—Estd. 1975. Licensed by Min. of Education. Privately funded, priv. tech. school. Conducts some local and many external exams. Instruc. is in English. Enrollment (1984): 912 FT dip.; 83 PT cert. students. Library: Relev. texts and references for courses offered and major current periodicals.

Calendar—(4 terms) Jan.-Mar., Apr.-June, July-Sept., Oct.-December.

Faculty (1984)—FT: 12 Lects., 26 Instructors. Qualifications: Bach.'s degrees, 35%; dip. holders, 65%.

University Affiliations—Univ. of Strathclyde, Glasgow, Scotland: Dip. holders receive 2 yrs.' exempt. from 4 yr. hons. degree course. Brighton Polytech., U.K.: Dip. holders receive 1 yr. exempt. from 3 yr. hons. degree course.

Grading Scale—Courses graded on basis of reports, papers and exercises. Dip. exams given after full prog. in June, Mar., December. Grade scale is as follows: Passing – A = 75%–100%, B = 60%–74%, C = 50%–59%, D = 40%–49%; Fail – F = 0–39%.

Dips. classif. as follows: Diploma Honors – First Class (min. of 5 A's, max. of 1 C); Second Class, Upper (min. of 4 A's, max. of 1 D); Second Class (min. of 2 A's); Pass Class (Pass in all subjs.).

Official Records—Official records, partial or complete, issued only by Principal. Dips. issued in August.

Entrance Requirements—Completion of Form V and SPM with at least 3 grades of Pass, preferably in Pure Math, Appl. Math and Physics. Candids. with other relev. qualifs. may be considered, particularly applics. from voc. schools.

Diplomas and Programs Offered and Recognition by Professional Bodies—Courses prepare students for external exams of the following: 1) CGLI Full Technological Cert.; 2) Society of Engr. (London) Pts. I, II & III; 3) Engr. Council (London); 4) Institute of Engr. (Malaysia); 5) Incorporated Assn. of Architects and Surveyors (London).

3 year: Dip.Arch. & Bldg. (5), Dip.Civ. Engr. (3), Dip.Elec. & Electron. Engr. (3), Dip.Mech. Engr. (3).

Future Plans—Dev. of Depts. of Comp. Sci. and Quant. Surveying.

INSTITUT TEKNOLOJI BUTTERWORTH (ITB)/BUTTERWORTH INSTITUTE OF TECHNOLOGY, 4478 Jalan Bagan Luar, P.O. Box 13, Butterworth, Malaysia. Location: Lot 112 Jalan Bagan Luar, Butterworth, Malaysia.

Description—Estd. 1974. Licensed by Min. of Education. Privately funded, priv. tech. school. Prepares students for external exams and internal diplomas. Primary instruc. in Engl.; *Bahasa Malaysia* used in 10% of classes. Enrollment (1984): 215 FT and 112 PT dip. students; 11 FT and 20 PT cert. students. Library: 436 books, current periodicals.

Calendar—(3 terms) Jan.-Apr., May-Aug., Sept.-December.

Faculty (1984)—13 FT and 6 PT faculty. Qualifications: Bach.'s degrees, 2; balance hold diplomas.

Recognition by Professional Bodies—Society of Engr. (London): Gives exempt. for any 3 of 4 papers of its Part I exam for ITB Dip. holders. CGLI: Gives exempt. for Part I exam. SIET: Accepts Dip. holders as Associated Members.

Grading Scale—Grades given for dept. exam and final exams. Scale is as follows: 80–100 are highest marks; 54–79, second highest; 45, lowest passing. Dips. awarded in First, Second and Third Class. Grade distrib. on recent set of dip. exams follows:

At Least	80	54	45	Fail
Mechanical	10.0%	41.25%	7.5%	41.25%
Electrical	11.7%	50.0%	6.7%	31.6%
Electronics	18.0%	50.0%	5.0%	27.0%

Official Records—Records issued only by Principal's office. Partial transcrs. available. Dips. issued 2 mos. after graduation. Syllabi avail. on request.

Entrance Requirements—.

3 year Engr. Dip. in Diesel, Elec., Mech., & Motor: Form V/SPM or equivalent.

2 year Tech. Dip. in Elec., Electron., & Mech.: Form V/SPM or equivalent.

2 year Tech. Dip. in Diesel or Motor: Form III/SRP or equivalent.

1 year Tech. Dip. in Mech. Fitter or Welding: Form III/SRP or equivalent.

Diplomas and Certificates Offered—

3 year Dip.: Diesel Engr., Elec. Engr., Mech. Engr., Motor Engr.

2 year Dip.: Diesel Tech., Elec. Tech., Electron. Tech., Mech. Tech., Motor Tech.

1 year Cert.: Mech. Fitter, Welding.

KOLEJ UGAMA SULTAN ZAINAL ABIDIN (KUSZA)/SULTAN ZAINAL ABIDIN RELIGIOUS COLLEGE, Gong Badak, Kuala Trengganu, Malaysia.

Description—Estd. 1980. Funded by State of Trengganu. Religious college that prepares students for natl. exams (SPM and STPM) and internal dip. course. Langs. of instruc.: *Bahasa Malaysia*, Arabic, English. Enrollment (1980): 34; projected enroll. for 1983, 480.

Entrance Requirements—Students transferring to any course must have relig. secondary school background.

Form IV: Max. age 16, SRP with Credit in *Bahasa Malaysia*, Arabic, Higher Islamic Knowledge and aggregate of not more than 16. Sci. students must also have credits in Math and Sci. + Pass in English.

Form VI: Age 17, Div. One or Two SPM with Credits in *Bahasa Malaysia*, Arabic, Higher Islamic Knowledge; exceptions may be made for other relig. qualifications.

Dip.Islamic Studies: Age 17, Div. One or Two SPM with Credits in *Bahasa Malaysia*, Arabic, Higher Islamic Knowledge or Credits in other subjs. or other qualifs., subj. to approval of Acad. Committee.

Programs Offered—Prep. for nationally administered SPM, STPM exams and for internal Dip.Islamic Studies (6 sems.) with emphasis in *Dakwah* (Islamic Litigation), Ed., *Syariah* (Islamic Law), *Usuluddin* (Theol.).

LEARNING TECHNOLOGY CENTER (LTC), No. 22/24, Lorong Medan Tuanku Satu, Jalan Tuanku Abdul Rahman, Kuala Lumpur, Malaysia. Branch Location: Bangunan Lama PKNS, Jalan SS8/1, Sg. Way, Selangor, Malaysia.

Description—Estd. 1982. Licensed by Min. of Education. Privately funded, priv. school offering variety of ed. programs. Main prog. is Intens. Engl. Lang., patterned after Center at S. Illinois Univ. at Carbondale (SIU-C), U.S. Also offered was first yr. liberal arts coursework from SIU-C, taught by SIU-C fac. in Kuala Lumpur. Third prog. is prep. course for Aust. Colleges of Education. Primary instruc. in English. Enrollment (1984): 279 FT students in SIU-C prog., 309 FT students in TESL program. Library: 600 books.

Calendar—(3 terms) Jan.-May, May-Aug., Aug.-December.

Faculty (1984)—All fac. tchg. in SIU-C prog. were regular SIU-C fac. on assignment in Malaysia. Fac. held rank of Prof., Asst. Prof. or Instructor. Qualifications: Ph.D.'s, 50%; master's, 20%; bach.'s degrees, 30%. Tchrs. of Intens. Engl. are all Instructors.

University Affiliations—U.S.: S. Illinois Univ. at Carbondale. Aust.: S. Aust. College of Advd. Ed., Adelaide; Hawthorn Institute of Ed., Hawthorn, Melbourne.

Grading Scale—LTC employs U.S. grading and credit sys.: A = 4, B = 3, C = 2, D = 1, F = 0.

Official Records—Transcrs. for SIU-C courses issued by SIU-C. Partial transcrs. available. Records for the TESL prog. depend on release of TOEFL scores.

Average FT Program—During admin. of SIU-C prog., course load ranged from min. of 12 credits to max. of 16 credits.

Entrance Requirements—SPM, Singapore Gen. Cert. of Ed. or Thailand Secondary School Cert., each with 5 Passes; MICSSUE with 5 A's & B's; SAT with 860.

Programs Offered—

SIU-C Liberal Arts Courses (offered 1983–1985): 1 yr.; however, courses taught in intens. modules so that students may complete 1 yr. of credits in 6 months.

TESL: 6 wk. segments of 30 hrs. per week.

Preparation Course for Aust. Colleges of Education: 1 mo.

Future Plans—M.B.A. and jr. transfer prog. in co-op. with U.S. univ.; U.S. secondary school program.

SEAMEO PUSAT SERANTAU PENDIDIKAN SAINS DAN MATEMATIK/ SOUTH-EAST ASIA MINISTERS OF EDUCATION ORGANIZATION REGIONAL CENTER FOR EDUCATION IN SCIENCE AND MATHEMATICS, (SEAMEO-RECSAM), Glugor, Penang, Malaysia. Cable Address: RECSAM PENANG.

Description—Estd. in 1967. Fully funded and licensed by govt.; receives funding from other sources as well. Programs planned and approved on 5-yr. cycle. Regional school serving students from Brunei, Indonesia, Malaysia, Philippines, Singapore and Thailand. Primary instruc. in English. Enrollment (1984): 260 FT cert. students evenly distrib. among the 6 countries. Library: 17,306 books; 200 periodicals with spec. collects. in sci. ed., math ed. and ed. technology.

Calendar—(4 quarters) Jan.-Mar., Apr.-June, July-Sept., Sept.-November.

Faculty (1984)—16 FT Lecturers. Qualifications: Ph.D.'s, 19%; master's, 44%; bach.'s degrees, 25%.

Grading Scale—Assessments made on indiv. assignments.
Official Records—Official records prepared by Deputy Director. Records not generally avail. to student, but info. may be released to school requesting information. Syllabi avail. on request.
Entrance Requirements—Students sel. by respective Mins. of Ed. of each SEAMEO country.
Diplomas and Certificates Offered—No certs. awarded.
Future Plans—Dip. course may be offered begin. July 1985.

STAMFORD COLLEGE GROUP, Stamford Center, Stamford Educational Towers, 218 Queen Street, Singapore, 0718.

Description—Group of colleges that prepares students for various natl. exams and overseas external qualifs. and internal dips. and certificates. Primary instruc. in English.

Study centers are COLLEGE OF ARTS & SCIENCE, 36 Jalan Balam, Batu 3, Jalan Ipoh, Kuala Lumpur (KL), Malaysia (MAL); CYMA COLLEGE OF COMMERCE, 6th Floor, Wisma Batu, #50 Jalan Tunku Abdul Rahman, KL, MAL; CYMA COLLEGE EXECUTIVE CENTER (Penang), 9th Floor, Wisma Central, 41 Jalan Macalister, Penang, MAL; MAKTAB FEDERAL/FEDERAL COLLEGE, Bangunan Chartered Bank, Tingkat 2, 33–35 Jalan Ipoh, KL, MAL; REGENT SCHOOL OF ECONOMICS, 7th Floor ENE Plaza, 128 Jalan Pudu, KL, MAL; STAMFORD EXECUTIVE CENTER, MTUC Bldg., 19 Jalan Barat, Petaling Jaya, Selangor, MAL; STAMFORD MANAGEMENT CENTER, Ground Floor, Wisma Shen, Jalan Masjid India, KL, MAL; STAMFORD SECRETARIAL CENTER, Ground and 1st Floor, Wisma Shen, Jalan Masjid India, KL, MAL.

Entrance Requirements—Vary by certificate.
Programs Offered—Students are prepared for profess. exams in the following (partial list):

Accounting Division
1 year: Higher Stage Grp. Dip.Acct./Econ./Costing, LCCI Dip.Acct.
3 year: ACA, ICMA.
Other: Assn. of Acct. Technicians; Assn. of Intl. Acctns., Malaysian Assn. of Certif. Pub. Accountants.

Banking Division
Examinations for Institute of Bankers (London); Institute Bank Bank Malaysia.

Computer Division
6 weeks PT: Word Proces. Operations.
4 months PT: Comp. Programming.
1 year FT: Stamford Dip.Bus. Computing.
Other: CGLI Comp. Prog. & Info. Proces., IDP & M.

Continuing Education for Hotel & Catering Management (in partnership with Educational Institute of Amer. Hotel & Motel Assn. located at Michigan State Univ.)
6 months: Stamford Certificate.
18 months after cert.: Dip. course yielding indiv. subj. Cert. of Educational Institute.

External Degree
3 years: Univ. of London L.L.B. (External).

Management Division
6 months: Stamford LCCI Cert.Pub. Relations.
15 months (Pt. I, 6 months; Pt. II, 9 months): Institute of Admin. Management.
1 year: LCCI Higher Grp. Dip.Mktg. or Pub. Relations.
2 years: Institute of Bus. Admin. (Aust.), Stamford Cert. in Mktg./Institute of Marketing.

Other: Assn. of Bus. Exec. (Pt. I, Cert.; Pt. II, Dip.; Pt. III, Advd. Dip.).
Secretaryship Division
1 year: Advd.Dip. Secre. Studies.
14–18 months: LCCI Dip.Priv. Secretaryship.
Up to 3 years: ICSA Company Secretaryship.
Other: Priv. Secretary's Certificate.
Pre-Professional Courses (some avail. by correspondence)
1 year: SRP, SPM, GCE A Level exams in profess. subjects.
2 years: STPM/HSC, Advd. Dip.Bus. Studies.

TAYLOR'S COLLEGE, P.O. Box 10505, Kuala Lumpur, Malaysia. Telex: TAYCOL MA 37473. Location: Jalan Pantai Baru, Kuala Lumpur, Malaysia.

Description—Estd. 1969. Licensed by Min. of Education. Privately funded school offering pre-univ. studies for students wishing to study in Aust. (since 1969) and Canada (since 1983). Instruc. in English. Enrollment (1984): 813 students in Aust. prog. and 324 students in Canadian program. Library: 2,100 vols.; 15 periodicals.
Calendar—(3 terms) Jan.-Apr., Apr.-July, Aug.-December.
Faculty (1984)—100% of fac. hold position of Lecturer. Qualifications: All hold bach.'s degrees.
Grading Scale—Marks given in each course based on following scale: Passing – A = 80–100, B = 70–79, C = 60–69, D = 50–59; Failing – E = 40–49, F = 0–39. Score of 295 out of 500 reqd. on S. Aust. program. Canadian prog. reqs. 6 credits. S. Aust. Matric. exam is administered in November.
Official Records—Full and partial transcrs. for courses taken are issued by Principal or Asst. Principal. Dips. avail. immed. after grad. in Canadian prog. and in Jan. after Nov. exam in Aust. program. Syllabi avail. on request.
Average FT Program—5 subjs. in Aust. prog., 6 in Canadian program.
Entrance Requirements—SPM, GCE O Levels or MICSS Sr. Middle II.
Diplomas and Programs Offered—Recognd. for entry to univs. in Aust., Canada, New Zealand, U.K. and United States:
S. Aust. Matric. Program: 1 year.
Ontario Secondary School Honor Graduation Dip.: Three 16-wk. terms; students with outstanding profic. in Engl. may finish prog. in 2 terms.

Government-Sponsored and Private Agencies, Organizations and Institutes Offering Orientation, In-Service Training and Continuing Education Courses

INSTITUT SENILUKIS MALAYSIA (ISM)/MALAYSIAN INSTITUTE OF ART, 225 Jalan Bukit Bintang, Kuala Lumpur, Malaysia.

Description—Estd. 1967. Licensed by Min. of Education. Privately funded art school offering courses in commercial art, fine arts, interior design, music and photography. Primary instruc. in Engl.; Mandarin used in approx. 10% of courses. Enrollment (1984): 700 FT dip. (5% from other countries), 350 FT cert. students (5% from other countries), 200 in PT short courses. Library: 15,000 books; 5,000 periodicals. Spec. collects. in Chinese Art and Calligraphy (classic and modern) and Malaysian Art.
Calendar—(3 terms) Jan.-Apr., Apr.-Aug., Aug.-December.

Faculty (1984)—2 FT, 4 PT Profs.; 26 FT, 20 PT Lecturers. Qualifications: Ph.D.'s (usually visiting profs. from univs. in Taiwan, Korea and U.S.), 10%; master's, 15%; bach.'s degrees or dips., 75%.

University Affiliations—Nanyang Academy of Fine Arts, Singapore; National Cultural Univ., Taipei, Taiwan (mainly for fac. exchanges but selec. ISM students may transfer to univ. in Taiwan and may be considered for exempts.).

Recognition by Professional Bodies—Courses recogn. by Malaysian Society of Interior Designers Ad-hoc Committee and by The Members of the Malaysian Advert. Association.

Grading Scale—Passing: A = 90–100, A– = 85–89, B+ = 80–84, B = 75–79, B– = 70–74, C+ = 65–69, C = 60–64; Unacceptable Passing Marks: C– = 55–59, D+ = 50–54, D = 45–49, D– = 40–44, E = 0–39, 0 = No work submitted. Dip. exams given at end of 3-yr. course.

Official Records—Full and partial transcrs. issued by Registrar but records from fac. may be considered acceptable. Dips. issued 1 mo. after graduation. Syllabi avail. on request.

Entrance Requirements—Cert., dip. courses and PT study req. SPM, MICSS Sr. Middle III Cert. or approp. portfolio and fac. testimony. The Advd.Dip. Fine Arts reqs. Dip.Fine Arts.

Average FT Program—8 courses/term; PT students, 3 classes/term.

Diplomas and Certificates Offered—

3 years: Dip.Commercial Art, Dip.Fine Art, Dip.Inter. Design, Dip.Mus.; Cert.Commercial Art, Cert.Inter. Design, Cert.Mus.

2 years: Advd. Dip.Fine Art; Cert. avail. through Dept. of Extramural Studies.

Future Plans—ISM plans new campus. Curric. will be dev. for arch., ceramics and pottery, dance and drama, fashion design.

INSTITUT TADBIRAN AWAM NEGARA (INTAN)/NATIONAL INSTITUTE OF PUBLIC ADMINISTRATION, P.O. Box 1154, Pantai Bharu, Kuala Lumpur, Malaysia. Telex: INTAN MA 31851. Location: Bukit Kiara, Jalan Damansara, Kuala Lumpur, Malaysia.

Description—Estd. 1972. Previous Name: Government Staff Training Center (1959–1972). Region. campuses in Sungai Petani, Bukit Geliga and Keluang. Govt. funded in-service trng. unit similar to IPPN and PLT. Provides in-service trng. for all grades of govt. employees aimed at resolving manager. problems, plan. and implement. of public policy, identifying officers for promotion and solving problems unique to particular agency. Primary instruc. in *Bahasa Malaysia*; Engl. used in 30% of courses. Enrollment (1984): 40 FT students in Dip.Mgt. Sci. prog.; 21,000 participants annually in 574 in-service courses. Library: 28,000 vols.; 208 periodical titles with emphasis in Mgt. and Trng. Methodology.

Calendar—Courses of varying length offered yr. round.

Faculty (1984)—130 FT faculty. Qualifications: Ph.D.'s, 3%; master's, 46.9%; bach.'s degrees, 50%.

Recognition by Professional Bodies—All progs. conducted as in-service trng. for govt. employees. Dip.Mgt. Sci. may be recogn. in priv. sector but is designed to meet needs of govt. managers.

Grading Scale—Dip. grades and approx. distrib. in paren. follow: Distinc. = 75–100 (23%); Credit = 65–74 (65%); Pass = 50–64 (10%); Fail = 0–49 (2%).

Official Records—Records of courses taken and grades given avail. only for dip. courses. Partial records not available. Transcrs. released almost immed. by Director.

Entrance Requirements—Because of in-service nature of course, entrance requir. for most courses is rel. to position held. The internal Dip.Pub. Admin. is pre-service requir. for selec. candids. who are eligible for recruitment by govt. as Admin. Officers. Dip.Mgt. Sci. open to selec. govt. officers holding manager. positions and Credit in SPM Math.

Diplomas and Programs Offered—

1 year: Dip.Pub. Admin.

11 months: Dip.Mgt. Sci.

Postgrad. course in Quant. Analy. (6 wks.) is reqd. of govt. officials selec. for grad. training. (Postgrad. study awards contingent on successful completion of course.)

MAKTAB KERJASAMA MALAYSIA/COOPERATIVE COLLEGE OF MALAYSIA, 103 Templer Road, P.O. Box 60, Petaling Jaya, Selangor, Malaysia.

Description—Estd. 1956. Previous Name: Maktab Bekerjasama-sama Malaya (1956–1967). Operating expenses funded by co-op. movement, capital expenses by government. Not reqd. to be licensed. Provides in-service trng. for members, board members, employees, and officers of co-ops. and govt. depts. and agencies overseeing co-op. development. Primary instruc. in *Bahasa Malaysia*; Engl. used in less than 10% of courses. Enrollment: Capacity to train max. 240 at a time; trained 1,800 in 1984. Library: 16,727 books with spec. collect. on cooperatives.

Faculty (1984)—3 Sr. Lects., 13 Lects., 4 Asst. Lecturers. Qualifications: Master's, 35%; bach.'s degrees, 45%; dip. holders, 20%.

Grading Scale—Distinc. = 75–100, Credit = 60–74, Pass = 40–59, Fail = 0–39.

Official Records—Grades avail. for courses completed. Official records issued by Principal only. Syllabi avail. on request.

Entrance Requirements—Affil. with organiz. or agency rel. to cooperatives.

Programs Offered—

Cert.Co-op. Mgt.: 12 wks. (5 wk. prog. for participants from dev. countries incl. 3 wks.' lect. and tutorials and 2 wks.' practical attachment to co-op. societies or agencies).

3 day to 2 wk. courses through Divs. of Co-op. Law & Admin., Co-op. Acct., and Co-op. Bus. Management. Certs. awarded for each course.

MALAYSIAN INSTITUTE OF MANAGEMENT (MIM), 227 Jalan Ampang, Kuala Lumpur, Malaysia.

Description—Estd. 1966. Priv. profess. organiz. (not a school) that reqs. no licensing. Offers courses, workshops, orientation and outreach progs. and seminars to members and other interested persons. Each level of membership—Affiliate, Assoc. Member (AMIM), Ordinary Member (MMIM) and Fellow (FMIM)—reqs. person to be in supervisory capacity. Moving through ranks of membership depends on level of mgt. respons. and experience. Membership as Fellow is by invitation and is based on significant achievement. Instruc. in Engl. but some courses have been transld. and can be offered in *Bahasa Malaysia*. Library: Contains references, tapes, films and other A–V materials rel. to trng. in management.

Calendar—Various teaching methods are employed and courses range from short courses lasting 1 session to long-term PT dip. courses of up to 1.5 years.

Grading Scale—Grade scale for Dip.Mgt. course follows: Distinc. = 70%–100%; Credit = 60%–69%; Pass = 40%–59%. Dips. awarded with Distinc., Merit and Pass with corresp. percents as above.

Entrance Requirements—Vary by course. Because nature of prog. is in-service trng. or cont. ed., the most important criteria for entrance is having relevant position for

which trng. is needed. Progs. offered as needed or by special request of employers. See individual progs. listed under Selected Diplomas and Short-Term Courses Offered.

Selected Diplomas and Short-Term Courses Offered—

Internal Diploma Courses: Dip.Profess. Secretyshp. – 1 yr. PT evening course for SPM holder with some basic secre. qualif. and 4 yrs.' experience; Dip.Mgt. – 1.5 yr. PT evening course (8 modules of 17 sessions each 5 hrs./wk. over 18 mos.) for jr. and middle managers and tech. supervisors.

Selected Short-Term Courses: BASIC MANAGEMENT PROGRAM – 2 wk., non-residential, intensive seminar for beginners in management. COSTING & COST CONTROL – 3 days of acct. and cost control for managers and executives. EFFECTIVE SALESMANSHIP – 2 days for sales executives. THE EFFECTIVE SECRETARY – sixteen 2.5 hr. sessions for secretaries and personal assts. working with middle and sr. managers. FINANCIAL ANALYSIS FOR NON-FINANCIAL EXECUTIVES – 2 days of acct. and finan. for begin. manager. IMPROVING BUSINESS WRITING SKILLS – six 4 hr. Sat. sessions. MOTIVATIONAL SELLING SEMINAR – 1 day. PSYCHOLOGY OF WINNING – 1.5 days on personal motivation. THE SECRETARY IN MANAGEMENT TODAY – 2 days geared toward secretaries and personal assts. working with middle and sr. management. TECHNIQUES OF CREDIT MANAGEMENT – 2 days for credit dept. personnel. TELEPHONE TECHNIQUES & COURTESIES – 1 day for secres., operators, personal assts., supervisors. WORK STUDY – 2 days' study of productivity.

PUSAT LATIHAN TELEKOM/TELECOMMUNICATIONS TRAINING CENTER, Gurney Road, Kuala Lumpur, Malaysia. Telex: MA 90006.

Description—Estd. 1948. Moved to present location in 1966. Govt. funded in-service trng. unit similar to INTAN and IPPN. Provides in-service courses for all grades of staff from techs. to engineers. Primary instruc. in *Bahasa Malaysia*; Engl. used in about 40% of classes. Enrollment (1984): Up to 400 persons in trng. at any one time. Library: 14,600 books; 120 periodicals.

Entrance Requirements—Because of in-service nature of courses, entrance requir. is rel. to position held.

Certificates Offered—All certs. for internal use of Telecommunica. Dept. only.

PUSAT PENVELIDIKAN GETAH MALAYSIA/RUBBER RESEARCH INSTITUTE OF MALAYSIA, P.O. Box 150, Kuala Lumpur 01–02, Malaysia. Cable Address: Searching Kuala Lumpur. Location: 260 Jalan Ampang, Kuala Lumpur 16–03, Malaysia.

Description—Research and trng. unit offering in-service courses for personnel in rubber industry. Courses non-acad. in nature and comprise short courses on specific topics to meet industry need, such as tapping sys., pesticides, etc.

Grading Scale—No formal assessment system.

Entrance Requirements—No formal entrance requir. except employment in industry.

SEKOLAH JURUTEKNIK AKITEK/ARCHITECTURAL TECHNICIANS TRAINING SCHOOL, Malaysian Institute of Architects, 4 & 6 Jalan Tangsi, P.O. Box 10855, Kuala Lumpur, Malaysia. Cable Address: PAMGRAM.

Description—Estd. 1972. Trng. course does not req. licensing. Offers in-service trng. courses for Arch. Techs. of member firms of Pertubuhan Akitek Malaysia (PAM)/ Malaysian Institute of Architects to improve employ. skills. Govt. recognition of cert. is not involved. Primary instruc. in English. Enrollment (1984): 221 FT cert. students.

Calendar—1st year: two 8 wk. terms, one 11 wk. term. 2d to 4th years: two 9 wk. terms, one 11 wk. term.

Faculty (1984)—PT Lecturers. Qualifications: Bach.'s degrees, 100%.

Grading Scale—Pass: A+ = 90–100, A = 82–89, A– = 75–81, B+ = 71–74, B = 68–70, B– = 65–67, C+ = 61–64, C = 56–60, C– = 50–55. Fail: D = 41–49, E = 0–40.
Official Records—Records of courses taken and grades received avail. and issued by Admin. or Supervisor. Courses are of equal value. Syllabi avail. on request. Certs. issued 8 mos. after graduation.
Entrance Requirements—Age 17 and holder of Sr. Cambridge Overseas School Cert. *or* SPM with Credits in Art, Math, and Gen. Sci. *or* SPM with acceptable work exper. *or* portfolio or acceptable work experience.
Internal Certificates Offered—
1st to 3d years: Cert.Arch. Train. Tech. I, II, & III, respectively.
4th year: Cert.PAM Arch. Tech.

UNIT LATIHAN PERHUTANAN (ULP)/FORESTRY COLLEGE, c/o Forest Research Institut, Kepong, Selangor, Malaysia.

Description—Estd. 1926. Previous Names: Forestry School Kepong (1926–1968), Forestry College (1968–1978). Fully govt. funded research unit offering in-service courses for employees of Forestry Unit. Primary instruc. in *Bahasa Malaysia*. Enrollment (1984): 96 FT Cert.Forestry, 46 FT Cert.Logging students. Library: 1,450 books.
Calendar—One 10 mo. acad. session, Jan.-November. Beginning in 1985, courses taught on sem. system.
Faculty (1984)—3 faculty. Qualifications: Bach.'s degrees.
Grading Scale—0 (low) to 100 (high) with 60, the lowest Pass.
Entrance Requirements—
Forestry Certificate: SRP + 2 yrs.' work exper. or up to Form III + 5 yrs.' work experience.
Logging Certificate: SRP.
Rangers Certificate: SPM.
Certificates Offered—
Forestry Certificate: 10 months.
Logging Certificate.
Rangers Certificate: 2 years.

Programs Offered By and Patterned After U.S. Colleges and Universities

The practice of offering courses overseas is not a new one to U.S. universities, but the practice of offering them in Malaysia in such quantity is new. Two patterns of U.S. education have emerged in Malaysia: 1) courses offered by U.S. universities in Malaysia, and 2) courses offered by private Malaysian colleges which are patterned after U.S. transfer programs. The two types of programs are separate and distinct. Many of the programs are not open to all students. It is necessary to understand the details of each program when considering a student who applies for transfer to a U.S. school. Because of the intense level of interest on the part of the Malaysians in importing U.S.-sponsored and U.S.-patterned programs, particularly in the mid-1980s, the information included here will not be all-inclusive as many agreements were

being negotiated at the time of publication of this volume. Nevertheless, it is possible to identify the pattern of programs and, therefore, keep the programs straight.

U.S. College- and University-Sponsored Programs in Malaysia

For some years, several Malaysian sponsors, who derive their funds from government sources, have been sending *bumiputra* (indigenous Malay) students to the United States for full degree programs. The MARA Foundation, for example, in an effort to increase the number of students in its scholarship program and, at the same time, keep expenses under control, has explored ways to reduce the number of years a student spends overseas to complete a degree. Since U.S. coursework from accredited schools is easily transferable, MARA has contracted with several U.S. universities or university consortia to offer U.S. coursework taught by U.S. faculty in Malaysia. Thus, after completion of up to four semesters of coursework, students may seek transfer to many U.S. schools. Instead of studying for four years in the U.S. for an undergraduate degree as in the past, *bumiputra* students may now spend two- to two and one-half years in the U.S. after completing up to four semesters of the degree in Malaysia.

Malaysian students use U.S. texts, complete the same course requirements as native English-speaking U.S. citizens enrolled in the same class on the main campus, earn grades on the same basis as their main campus counterparts and receive official transcripts from the U.S. school which is sponsoring the courses in Malaysia. The courses offered are generally transferable. In some cases, the transcript does not even indicate that the course was taken in an off-campus location. The discernible differences are that the courses are being taught in Malaysia, selection of the students was done cooperatively by the sponsor and the host institution, the students in the classes are usually all Malays, and the level of English proficiency, though regulated, may be lower than that in classes made up of predominantly native English speakers.

UNDERGRADUATE PROGRAMS OFFERED BY U.S. UNIVERSITIES IN MALAYSIA

Schools that have offered or are offering lower division coursework in Malaysia at the time of publication are listed below. Contracts with other U.S. schools are being negotiated but were not concluded in time to be included in this volume.

Institut Teknologi MARA (ITM)/Midwest Universities Consortium for International Activities, Inc. (MUCIA), Cooperative Program in Malaysia

The address and telephone number of the responsible office where information can be obtained are as follows: Placement Services, c/o ITM-MUCIA, 201 North Indiana Avenue, Indiana University (IU), Bloomington, IN 47405. Telephone: (812) 335-6266.

The program began in January 1985 with a preparatory course; the academic program began in August 1985. During the initial year of the program, 1,200 students enrolled. The estimated maximum size of the program is 2,400. Courses carry Indiana University credit and transcripts will be issued by IU. Students completing the program (four full semesters) will be awarded an Associate of General Studies (AGS) degree. Students are expected to transfer to MUCIA schools as well as to other U.S. colleges and universities.

Institut Teknologi MARA (ITM)/Texas International Educational Consortium (TIEC) Cooperative Program in Malaysia

The address and telephone number of the responsible office where information can be obtained are as follows: Office of the Executive Director of TIEC, 2210 San Gabriel, Austin, TX 78705. Telephone: (512) 471-9283.

Thirteen Texas colleges and universities form this consortium. Each provides faculty for courses unique to that institution and the students are admitted directly to one of the thirteen TIEC schools.

The program began November 15, 1985. During the first year, 1,200 students were expected to enroll. Students complete two years of coursework in Malaysia and then relocate to the Texas campus to which they were originally admitted to finish the last two years of their degree program. Transcripts are issued by each individual TIEC school in which the student enrolls. Courses may be coded to indicate they were taught at an off-campus location.

Schools involved in the consortium are El Paso Community College, Lamar University in Beaumont, Midwestern State University in Wichita Falls, North Texas State University in Denton, Texas A & I in Kingsville, Texas A & M in College Station, Texas Tech University in Lubbock, University of Houston, University of Texas at Arlington, University of Texas at Austin (intensive English only), University of Texas at El Paso, University of Texas of Permian Basin in Odessa, West Texas State University in Canyon.

Southern Illinois University (SIU) Malaysia Program with Learning Technology Center

The address and telephone number of the responsible office where information can be obtained are as follows: Division of Continuing Education, Southern Illinois University, Washington Square C, Carbondale, IL 62901. Telephone: (618) 536-7751.

The program was offered from fall of 1983 to summer of 1985. Each year, 100–125 students enrolled and were taught by SIU faculty. All courses were first year college courses. No certificate of completion of studies was awarded but transcripts of grades are available through the SIU main campus. Students transferred to SIU and other U.S. campuses.

State University of New York at Buffalo/Institut Teknologi MARA Cooperative Educational Training Program

The address and telephone number of the responsible office where information can be obtained are as follows: Project Office, 415 Bonner Hall, State University of New York at Buffalo, Buffalo, NY 14260. Telephone: (716) 636-2368.

The program began in June 1986 and is administered jointly by the Faculty of Engineering and Applied Science and the Intensive English Language Institute of SUNY/Buffalo. Four hundred students will enroll per year. The program is projected for two years but is renewable.

Students must complete an 8-10 week intensive English and pre-academic orientation program in Malaysia administered by SUNY/Buffalo and achieve TOEFL scores of 550

before admission to the degree program. Admission requirements are the same as those in force at SUNY/Buffalo. Students will earn the Associate Degree in Engineering Science or the Associate Degree in Management Science. Upon completion of the program, qualified students will transfer to SUNY/Buffalo and other U.S. institutions. Transfer is not guaranteed as part of the contract.

University of Maryland University College Malaysia Program in Cooperation with Institut Teknologi MARA (ITM)

The address and telephone number of the responsible office where information can be obtained are as follows: Office of International Programs, University of Maryland, University College (UMUC), University Boulevard at Adelphi Road, College Park, MD 20742. Telephone: (301) 985-7442.

The program began in summer 1985. Students enter twice annually and stay for two years. During the initial year of the program, 260 students enrolled. The estimated maximum size of the program is 700. Courses are offered for UM resident credit and transcripts will be issued by UMUC in College Park. Students completing the program are awarded the Associate in Arts degree by UMUC. Students are expected to transfer to universitites in the U.S. to continue their undergraduate studies.

Also available to selected Malaysian students are degree completion programs offered currently by two U.S. universities in cooperation with particular Malaysian schools.

Institut Teknologi MARA/Ohio University (OU)

Ohio University (OU), Athens, Ohio, has had a long-standing relationship with ITM and has assisted with the development of the curriculum for the Diploma in Business Studies. In 1975, OU began offering two additional years of upper division coursework, taught by OU faculty in Malaysia to complete the Ohio University B.B.A. (See ITM profile.) For further information, contact Coordinator MARA/BBA, Ohio University, Copeland Hall, Room 109, Athens, OH 45701.

Kolej Tunku Abdul Rahman/Campbell University

Since 1979, Campbell University, Buies Creek, North Carolina, has offered its Bachelor of Science in Applied Sciences to selected students from Kolej Tunku Abdul Rahman (TAR College) who complete the TAR Diploma in Science course and take Campbell University degree exams. (See TAR College profile.) Campbell requires no further coursework and faculty teaching in the program are TAR faculty hired as adjunct faculty of Campbell University. The degree scroll awarded is almost identical to the Campbell institutional diploma. Transcripts are prepared by Campbell University. For further information, contact Office of the President, Campbell University, Buies Creek, NC.

GRADUATE PROGRAMS OFFERED BY U.S. UNIVERSITIES IN MALAYSIA

Ohio University offers an Executive Master's of Business Administration (EMBA) at ITM taught by Ohio University faculty. (See ITM profile.) Since 1977, Michigan State University (MSU) has offered an M.A. in Curriculum and Instruction through the Graduate Education Overseas program administered by the Lifelong Education Program and the College of Education. The five week modular course is offered by MSU faculty

at both the International School of Kuala Lumpur and the Singapore American School to qualified teachers from the two institutions holding U.S. bachelor's degrees or their recognized equivalents. More information can be obtained by writing to Graduate Education Overseas, Room 6, Kellogg Center, Michigan State University, East Lansing, MI 48824–1022.

Two master's degrees offered temporarily, one by Ohio University and one by the University of Kentucky, are noted in the ITM profile earlier in this chapter.

U.S.–Patterned Transfer Programs

Early in the 1980s, the Malaysian government encouraged the expansion of educational opportunities for Malaysian youth through the development of more private schools. This practice of "privatization" of education was aimed at reducing the cost of educating Malaysian youth abroad and expanding the educational opportunities for youth within the country. Entrepreneurs and educators began to develop academic programs patterned after U.S. community colleges, often with the advice and counsel of professional staff from U.S. schools. The first of these programs appeared in Malaysia in 1983 in schools which were licensed to operate by the Ministry of Education (although the Ministry does not recognize the courses offered).

While the community college concept is a familiar one to U.S. educators, it is not necessarily one that is familiar or acceptable to all Malaysians. This wholly U.S. concept is not structurally compatible with an educational system which is basically British-patterned. Because there are fairly strict definitions of what is acceptable as part of the national system of education, this foreign system is allowed to operate only outside the official Malaysian system of education.

There is a precedent in Malaysia for allowing private schools to offer instruction in preparation for examinations from other countries. Courses which prepare students to take examinations leading to British qualifications are quite common and are offered at a wide variety of licensed schools. Preparation is also available for secondary school leaving examinations of other countries so that students might qualify for entrance to universities in those countries. The academic work at these schools is not, however, recognized by any schools in Malaysia as acceptable for transfer, nor by the government as an acceptable basis of education or training for employment purposes. **It is only the subsequent external qualification earned that may be recognized.** Internal diplomas may be recognized in the private sector for employment purposes.

The same principle applies to new schools offering U.S.–patterned coursework (see Profiles later in this section). The coursework is not recognized. To gain recognition of the academic program, the student must transfer to a college or university in the United States and complete the bachelor's degree requirements there. The work done at the Malaysian college is recognized only if the U.S. institution accepts it and uses it partially to fulfill the requirements for the bachelor's degree that the U.S. institution offers. The student

who completes the degree earns the U.S. bachelor's degree which may be recognized in Malaysia.

Author's Note: Early requests (prior to completion of one full year of operation) were received by U.S. colleges and universities to consider applications for admission and transfer on behalf of the students of these new Malaysian private schools and, in some cases, for the development of formal articulation agreements. Quality among these new private Malaysian schools varied greatly at the time of the writing of this text, and generalizations about one school could not be applied to another. However, guidelines for transferring courses from brand new U.S. schools may be applicable. Characteristics to be considered include: qualifications and stability of the faculty, the existence and quality of a library, entrance requirements, financial stability and availability of textbooks and facilities.

The secondary school credential (SPM) on which the student was selected for entrance to the Malaysian school may be useful in determining whether the student originally met the U.S. school's entrance requirements. If the original secondary school credentials and the academic performance at the Malaysian community college are sufficient to meet the U.S. schools' standards, then the case for admission is much stronger. Requesting actual course offerings (semester-by-semester schedule of classes) may be useful as some catalogs have contained the long range plan of courses to be offered rather than courses that the school actually has the capacity to offer.

Where relationships are said to exist with U.S. schools, the relationship should be verified and the nature of the relationship understood as such relationships vary from school to school. In some cases, the relationship involves active participation in the planning and development process and regular communication between the staffs of the U.S. school and the Malaysian school, such as that between Kolej Damansara Utama and Broward Community College. Contacting the U.S. school for current information is essential as the programs are developing and changing. (Institutional affiliations are described in the school profiles at the end of this section.) In other cases, individual faculty members or administrators from the U.S. have agreed to give counsel only if called upon. The agreement by an individual does not always bring with it the endorsement of the U.S. school which employs that individual; and there have been instances where the U.S. school, rather than the individual, has been listed as having a relationship with the Malaysian school. Such less sophisticated practices will be corrected with time.

As more private schools offering U.S.-patterned programs develop, the acceptance of this type of education in Malaysia by the Malaysian government and universities should be monitored as that, too, could change.

PROFILES OF SCHOOLS OFFERING U.S.-PATTERNED TRANSFER PROGRAMS

Within each profile, acronyms for other institutions, professional bodies or examinations may appear. The reader is directed to Appendix E for a list of

these acronyms and initialisms and the institution, professional body or examination represented.

KOLEJ DAMANSARA UTAMA (KDU)/COLLEGE DAMANSARA UTAMA, SS22/41, Damansara Jaya, Petaling Jaya, Selangor, Malaysia. Telex: MA37705.

Description—Estd. 1981. Previous Name: Paramount Academy (Oct. 1981–May 1983). Privately funded postsecondary institution. Licensed by government. Prepares students for Malaysian natl. exams, Brit. qualifs. and offers courses patterned after U.S. commun. college courses. Primary instruc. in Engl.; *Bahasa Malaysia* used for instruc. in STPM program. Enrollment (1984): 1,074 FT; 143 PT students. Library: 3,000 vols.; 25 periodicals.

Calendar—(3 terms) Jan.-Apr., Apr.-Aug., Aug.-December.

Faculty (1984)—10 FT Prog. Co-ords., 3 FT Sr. Lects., 40 FT and 19 PT Lects., 3 Tutors. Qualifications: Ph.D.'s, 3%; master's, 29%; U.K. bach.'s (hons.) degree plus postgrad. Dip.Ed., 67%.

University Affiliations—Broward Commun. College (Pompano Beach, Florida) maintains active consulting relationship on the dev. of the KDU Internal Dip. in Assoc. of Arts/Assoc. of Sci. program. Twice yearly consultation on course development, fac./staff credentials, teaching aids, library development, etc.

Recognition by Professional Bodies—All profess. qualif. exams conducted by respective profess. bodies through external exams.

Grading Scale—

CGLI 747 (Comp.): Distinc., Credit, Pass.
ICMA Program: A–C grades.
ICSA Program and ACA Program: Pass/Fail.
IDP & M Program: Pass/Fail.
KDU Internal Diploma: A = 4, B = 3, C = 2, D = 1, F = 0.
LCCI Program: Pass with Distinc., Pass with Credit, Pass.
STPM/GCE A Levels: A, B, C, D, E, O, grades.

Examinations—

Apr. – Pitman High. Secre. Grp. Dip. (HSGD), KDU Internal Dip. sem. exams, LCCI High. Stage Grp. Dip., Priv. Secre. Cert. (PSC).
May – ACA, ICMA, ICSA.
June – CGLI 747, GCE A Levels, IDP & M, PSC, Univ. of London L.L.B.
Aug. – HSGD, KDU Internal Dip. sem. exams.
Nov. – GCE A Levels, STPM.
Dec. – ACA, HSGD, ICMA, ICSA, IPD & M, KDU Internal Dip. sem. exams.

Credit System—1 credit = 15 hrs.' instruction.

Official Records—Official records issued by Registrar's office only. Partial transcrs. available. Dips. avail. 1–3 mos. after graduation. Course outlines for KDU Internal Dip. in Assoc. of Arts/Assoc. of Sci. progs. follow those of Broward Commun. College.

Entrance Requirements—See Diplomas and Certificates Offered.

Diplomas and Certificates Offered—

Programs requiring SPM – 1 year: CGLI 747 Cert. (Comp.), U.K.; PSC. 1–1.5 years: GCE A Levels, LCCI High. Grp. Dip. (U.K.), STPM. 2 years: CGLI 271 Cert. (Full Tech.), U.K.; IDP & M (U.K.).

KDU Internal Dip. in Assoc. of Arts/Assoc. of Sci. (up to 16 mos.) req. any one of following for entrance – GCE O Levels, GCE A Levels, LCCI High., S. Aust. Matric. Cert., SPM, STPM.

Programs requiring STPM or GCE A Levels – 6 months: Pitman High. Secre. Grp. Dip. (HSGD). 3 years: ACA, ICMA, ICSA. 4 years (PT evening): Univ. of London External L.L.B.

Future Plans—Dev. of departments for Tech. Studies, Drftsmnshp., Electron. Engineering.

MAKTAB SAINS MARA (MSM)/MARA SCIENCE COLLEGE (Also known as MARA Community College), Km. 8, Jalan Gambang, Kuantan, Pahang, Malaysia.

Description—Estd. 1983 under MARA Act of 1966 giving freedom to MARA to provide trng. and ed. facilities for *bumiputra* (indigenous Malays). Receives funds from govt. by way of Yayasan Pelajaran MARA (MARA Ed. Fndn.). Indep. postsecondary institution (not part of natl. sys. of ed. nor subj. to regulations of Min. of Education). Primary instruc. in Engl.; *Bahasa Malaysia* used only in courses in Malay and Islamic Relig. Knowledge. Enrollment (1984): 190 FT students; 1985 projected enroll., 750 students. Library: 6,000 volumes.

Calendar—(2 sems.) Sept.-Jan., Feb.-June.

Faculty (1984)—Approx. 20 fac. served as Lects. (78% FT, 4% PT); Asst. Lects. (7% FT, 11% PT). Qualifications: Ph.D.'s, 17%; master's, 74%; bach.'s degrees, 9%.

University Affiliations—Lincoln Land Commun. College (Springfield, Illinois) has consulting relationship on curric. dev., fac. trng., textbook selec. and procurement.

Grading Scale—A (Excell.) = 4; B (Good) = 3; C (Satis.) = 2; D (Poor) = 1; F (Fail) = 0. Grade point aves. (G.P.A.) calculated as in United States. Students need cum. G.P.A. of at least 2.5 to proceed to next sem.; may be placed on acad. probation for 1 sem. if G.P.A. falls below min. reqd. in any given sem.: 6–11 credits, 1.5; 12–22 credits, 1.6; 23–33 credits, 1.7; 34–44 credits, 1.8; 45–55 credits, 1.9; 56 credits and above, 2.00.

Official Records—Grade reports issued to students each semester. Grades based on coursework and exams. Partial transcrs. available. Official records issued by Admissions and Records Officer. Degrees or dips. not offered.

Minimum FT Program—12 sem. credits.

Entrance Requirements—SPM Div. One or Two with aggregate of not more than 21 pts. and with at least Credit 4 on Engl. Syll. 122 or TOEFL score of 520 and Credit in Mod. Math. and 3 subjs. other than *Bahasa Malaysia* and Islamic Relig. Knowledge; GCE O Levels; STPM; GCE A Levels; LCCI Certificate. If student does not meet Engl. requir., a 6-credit remedial Engl. course may be taken along with other courses. Selec. depts. may have further subj. requirements.

Programs Offered—Only coursework patterned after U.S. commun. college courses offered. No degrees, dips. or certs. awarded.

Future Plans—After Maktab Sains MARA in Kuantan is firmly estd., parent body hopes to est. other free-standing colleges. Maktab Sains MARA in Kuantan plans to grow to 1,200 in size and build more student hostels. Acad. expans. plans incl. transfer prog. in architecture.

PETALING JAYA COMMUNITY COLLEGE (PJCC), P.O. Box 624, Jalan Sultan, Petaling Jaya, Selangor, Malaysia. Location: 3d floor, MTUC Bldg., 19, Jalan Barat, Petaling Jaya, Selangor, Malaysia.

Description—Estd. 1984. Licensed by government. Privately funded institution offering coursework patterned after U.S. commun. college. Primary instruc. in English. Enrollment (1984): 87 FT students. Library: 1,000 volumes.

Calendar—(three 15 wk. terms) Jan.-Apr., May-Aug., Sept.-December.

Faculty (1984)—2 FT, 6 PT Professors. Qualifications: Ph.D.'s, 50%; master's, 50%.

University Affiliations—Moderators from Univ. of Montana; Wilmington College, Ohio; Hawaii Pacific, Hawaii.

Grading Scale—Grades awarded in each course (50% for assignments, 20% for midterm exam and 30% for final exam). Grade scale and internal percent used for marking papers follows: A = 94%–100%; A− = 90%–93%; B+ = 87%–89%; B = 84%–86%; B− = 80%–83%; C+ = 77%–79%; C = 74%–76%; C− = 70%–73%; D+ = 67%–69%; D = 64%–66%; D− = 60%–63%; F = below 60%. Approx. distrib. is: A = 10%–15%; B = 30%–35%; C = 30%; D = 15%; F = 5%.

Official Records—Official records issued exclusively by Registrar at end of each semester. Partial transcrs. available. Credits shown on transcr. and courses weighted according to no. of credits. Syllabi avail. on request.

Average FT Program—4 courses.

Entrance Requirements—SPM Div. One or Two with 5 Credits incl. Engl. and Math and max. aggregate of 30; STPM with 2 Prin. Passes; Canadian Grade 13 with min. 65% average; S. Aust. Matric. with min. 350 in best 5 subjects. All students given Engl. Place. Test. Weak students reqd. to complete Engl. Fndns. Program.

Programs Offered— Only coursework patterned after U.S. commun. college offered. No degrees, dips. or certs. awarded.

Chapter VII

Allied Health Professions

Schools offering training in the allied health fields are often located in hospitals where lecture can be readily applied and students can observe persons in various states of health on an ongoing basis. The Ministry of Health, involved in continuous assessment of the national health care delivery system, develops the training programs for most of the health care professions and supervises the schools that train students to become dental technicians, health inspectors, laboratory technology assistants, medical assistants, medical laboratory technologists, nurses, occupational and physical therapists, pharmacy assistants, and x-ray technicians, among others. Funding for the government schools comes through the national budget as does funding for schools under the Ministry of Education. Private schools must have permission of the Ministry of Health to offer instruction. Salaries for employees trained in the schools are regulated and directly related to the qualifications earned from the schools. Salary categories are established for each credential and regulated by the Public Services Department (PSD).

In addition to an academic qualification needed to enter each profession noted below, there is an age limit for entrance. Applicants must be between the ages of eighteen to twenty-four except for rural nurses (seventeen to twenty-five) in Sabah and female community nurses and male rural health supervisors (eighteen to twenty-five) in Sarawak.

Nursing

There are several classifications of nurses in Malaysia and the hierarchy varies depending on the location and the type of facility in which they work and the duties they perform. Training is provided in General or District Hospital Schools of Nursing and in some private schools. Eight Nursing Schools are located at General Hospitals in Ipoh, Johor Bahru, Kota Bahru, Kuala Lumpur, Melacca, Penang, at the Queen Elizabeth Hospital in Kota Kinabalu and Sarawak General Hospital in Kuching and at Lam Wah Ee private hospital in Penang (established in 1986) and Tun Tan Cheng Lock Nurses School in Petaling Jaya.

The desired per capita ratio of health care facilities to the population (one health center with four subcenters per 50,000 persons) has not been met in all parts of Malaysia. The main health care center is staffed by a doctor, one to two staff nurses, two to three assistant nurses and a midwife, but much of

the health care is delivered by visiting rural or community nurses or midwives who provide health education and health care in the home or community that includes vaccinations and obstetrical services.

Selections for the nursing courses are made by the Public Services Department (PSD). The size of the entering class is determined centrally by the Ministry of Health and is influenced by manpower requirements. Where certain types of personnel are needed, the school may grow rapidly; likewise, student enrollment may dwindle quickly if manpower needs are met. Students apply directly to the PSD which screens applicants, administers examinations and conducts interviews.

Staff Nurse

The *Jururawat* (Staff Nurse), who supervises other types of nurses, is the most highly trained nurse in the nursing hierarchy. The staff nurse works at government hospitals and clinics and is an employee of the Ministry of Health. Another classification of nurse, the municipal nurse, has the same training and status as the staff nurse, but works in urban clinics and reports to the administration of the State in which the clinic is located. There is no transfer possible between these two types of nurses although the training is the same.

Admission to the staff nurse program requires the *Sijil Pelajaran Malaysia* (SPM), formerly the Malaysian Certificate of Education (MCE), with a Pass in *Bahasa Malaysia* (Malay Language), including the oral test, and mathematics and a Credit in a science, all taken at the same sitting, plus satisfactory scores on an entrance examination. In 1983, approximately 1,000 candidates with the SPM sat for the examination. Based on the examination results, 151 candidates were selected for interviews with the PSD which assisted with the selection of the final fifty candidates.

The three-year program of study is outlined in Table 7.1. After the staff nurse candidates are enrolled and have been studying for twelve weeks, they sit for a qualifying examination. If the examination is not passed, it may be taken a second time. If not passed the second time, the student is dropped from the training program. Approximately 5% to 10% of the students are dropped at this stage.

On-the-job practical training is interspersed with the coursework. The curriculum is currently under review. The *Sijil Kejururawatan* (Certificate of Staff Nurse) is awarded at graduation.

Rural Nurse

The *Jururawat Desa* (Rural Nurse) serves mostly in Peninsular Malaysia. Working independently in the rural setting, the rural nurse brings basic health services (health education, emergency care, obstetrical services, treatment of minor ailments) to people who otherwise have no access to health care. The

Table 7.1. Three-Year Curriculum for Basic Nursing

Block I (Duration—12 weeks; entry on recruitment)	Hours	Block II (Duration—4 weeks; entry between months 8 and 10)	Hours
Anatomy & Physiology	65	Medicine & Medical Nursing	30
First Aid	16	Pediatrics & Pediatr. Nurs.	10
Hist. of Nursing, Ethics & Public Relations	10	Pharmacology	12
Microbiology	16	Professional Adjustments	10
Nutrition	8	Social Sciences	8
Orientation	15	Surgery & Surg. Nursing	30
Personal & Public Health	20	Theory & Practice of Nursing	20
Psychology; Customs & Beliefs	16	Tests	3
Theory & Practice of Nursing (incl. 50 hours of Ward Practice)	184	Films, Discussions, Studies & Visits	10
Tests & Examinations	12		
Films, Discussions, Studies & Visits	40		
Total Hours	402		133
Block III (Duration—12 weeks; entry at 16 months)		**Block IV (Duration—4 weeks; entry at 3d year)**	
Communicable Diseases & TB	30	Intro. to Ward Management	20
Ear, Nose & Throat Nursing	10	Medicine & Med. Nursing	30
Eye Nursing	10	Pediatrics & Pediatr. Nurs.	10
Genito-Urinary Nursing	8	Surgery & Surg. Nursing	30
Gynecology & Gyn. Nursing	20	Theory & Practice of Nursing	30
Medicine & Medical Nursing	50		
Orthopedic & Ortho. Nursing	15		
Pediatrics & Pediatr. Nurs.	20		
Pharmacology	12		
Psychiatry & Psyc. Nursing	30		
Skin & Sex. Transm. Diseases	8		
Surgery & Surgical Nursing	60		
Theory & Practice of Nursing	60		
Tests & Practical Exam	30		
Studies, Discussions	33		
Total Hours	396		120

Source: Information supplied by the Ministry of Health, 1985.

two and one-half year training program is offered at schools in Johor, Kelantan, and Pahang. Applicants for rural nurses' training must have the *Sijil Rendah Pelajaran* (SRP), formerly the Lower Certificate of Education (LCE), given at the completion of grade 9, with at least Pass in *Bahasa Malaysia* and Math and Credit in Science/Integrated Science, all taken at the same sitting. In order to assure a supply of nurses for health care in very remote areas, nurse candidates are given scholarships for training in exchange for a three-year contract of government service. The *Sijil Jururawat Desa* (Certificate of Rural Nurse) is awarded upon graduation.

Community Nurse (Sarawak) and Rural Health Nurse (Sabah)

The responsibilities of the *Jururawat Masyarakat* (Community Nurse), Sarawak and the *Jururawat Kesihatan Luar Bandar* (Rural Health Nurse), Sabah are similar. The community nurses (Sarawak) are trained in schools in Serian and Sibu, Sarawak. Admission to the program requires the SRP or the equivalent Sarawak Junior Certificate (both equal to completion of grade 9). After a two and one-half year training course, the student is awarded the *Sijil Jururawat Masyarakat* (Certificate of Community Nurse).

Rural health nurses (Sabah) are trained at schools in Kota Kinabalu and Papar. The two and one-half year training program requires for entrance the SRP or successful completion of a government-recognized rural nurse course and possession of the Certificate of Qualification of Rural Nurse. The rural health nurse must also have good knowledge of *Bahasa Malaysia*. The *Sijil Jururawat Kesihatan Luar Bandar* (Certificate of Rural Health Nurse) is awarded.

Assistant Nurse

The *Penolong Jururawat* (Assistant Nurse) is trained as a nurse's aide in either hospital or rural clinic settings. Immunization is included along with other duties. The SRP with the same Pass requirements as for the rural nurse is needed for admission to the training program. The two-year course is offered in General Hospitals in Alor Star, Kelang, Kuala Terengganu, Kuantan and Tawau; in District Hospitals in Batu Gajah, Bukit Mertajam, Kluang, Kuala Pilah, Muar, Sq. Pantai, Taiping; at the Bukit Padang Hospital in Kota Kinabalu and the Duchess of Kent Hospital in Sandakan. The *Sijil Penolong Jururawat* (Certificate of Assistant Nurse) is awarded upon completion of the training program.

The assistant nurse with ten years of experience may become a staff nurse. The candidate must take a qualifying examination in anatomy and physiology, nursing theory and public health and be interviewed by the PSD. If selected for additional training, the assistant nurse enters a twenty-eight month staff nurse course (shortened from the full three-year program because the practical training portion of the course has already been completed).

Midwife Division II

Admission to *Bidan Bahagian II* (Midwife Division II) training is based on the SRP with the same Pass requirements as for the rural nurse. The *Sijil Bidan Bahagian II* (Certificate of Midwife Division II) is awarded upon completion of the training program. After completion of the two-year course and some practical experience, midwives can take an additional six months of training to become community nurses.

Nursing Specializations

A number of courses are offered for staff nurses who wish to get further training in a specialization. One-year courses beyond the basic three-year nurses training course are offered for the following: *Kejururawatan Kesihatan Awam* (Public Health Nurse), *Kejururawatan Sakit Jiwa* (Psychiatric Nurse), or *Perbidanan I* (Midwife Division I). Six-month courses are provided for staff nurses who wish to become one of the following: *Kejururawatan Buah Pinggang* (Renal Nurse), *Kejururawatan Kanak* (Pediatric Nurse), *Kejururawatan Mata* (Ophthalmic Nurse), *Kejururawatan Otopidik* (Orthopedic Nurse), or *Teknik Dewan Bedah* (Operating Theater Nurse). Four-month courses are given for training in *Bekalan Suahama* (Central Sterile Supply), *Pengurusan Wad* (Ward Management) and *Perawatan Jantung* (Intensive Coronary Care).

Occupational Therapy and Physical Therapy

Training for the fields of *Jurupulih Cara Kerja* (Occupational Therapy) and *Fisioterapi* (Physical Therapy) is relatively new in Malaysia. Only one school exists at this time for each profession and each is attached to the General Hospital in Kuala Lumpur.

Occupational Therapy

The Sekolah Latihan Jurupulih Cara Kerja/School of Occupational Therapy opened in 1984. The first class began in November 1984. The Occupational Therapist works with the mentally retarded and cerebral palsied as well as with the psychologically and physiologically handicapped. Admission to the Occupational Therapy (OT) training program requires the SPM with Pass in *Bahasa Malaysia* (including the oral test) and English and Credit in two science subjects and one other subject, all taken in the same sitting.

The three-year program involves two years of coursework and one year of primarily practical training plus a month of review prior to examinations. Each year of instruction is divided into three terms of sixteen weeks each. Students are given two weeks' annual leave plus a one-week break between sessions.

Classes meet thirty hours per week and students must attend 80% of the classes in order to be considered for promotion. Table 7.2 outlines the curriculum; however, the curriculum is subject to change. The *Sijil Jurupulih Cara Kerja* (Certificate of Occupational Therapy) is awarded at the end of the program.

Grades for the course are given in percentages with 50% the passing mark. Thirty percent of the student's grade is based on examinations, written reports and projects and activity files while 70% of the annual grade is based on the final examination at the end of the year. During clinical practice, students keep a log and their work is assessed by a supervisor. When letter grades are used, the grading scale is as follows: A = Very Good, B = Good, C = Pass, D = Fail.

Because the program is new, all faculty in the OT program have been trained overseas. All have Diplomas in Occupational Therapy and, in addition, have Certificates in Education (United Kingdom) and Teacher's Diplomas in Occupational Therapy from the College of Occupational Therapists, United Kingdom, plus six months' experience in the field. Part-time lecturers, doctors and specialists from the Universiti Kebangsaan Malaysia/National University of Malaysia lecture in basic sciences and medical subjects.

Table 7.2. Curriculum for Occupational Therapy

	First Year
Theory:	Anatomy & Physiology, Basic Principles of Occupa. Ther., Psychology, Sociology
Practice:	First Aid, Gardening, Recreation, Stool Seating, Woodwork
Clinical Practice:	3 weeks
First Professional Examination	
	Second Year
Theory:	Communication & Management, Kinesiology, Medicine & Surgical Disorders, Occupa. Ther. Applied to Physical Conditions, Occupa. Ther. Applied to Psychiatric Conditions, Psychiatry
Practice:	Basketry, Orthotics & Pressure Garments, Recreation Typing
Clinical Experience:	8 weeks
Second Professional Examination	
	Third Year
Theory:	Community Services, Research Project, Revision (Occupa. Ther. Applied to Physical & Psychiatric Conditions)
Clinical Experience:	31 weeks
Third Professional Examination	

SOURCE: Information supplied by the Director, School of Occupational Therapy, 1985.

Physical Therapy

The Sekolah Latihan Fisioterapi/School of Physical Therapy (in Malaysia, the term physiotherapy is used instead of physical therapy), located in the General Hospital in Kuala Lumpur, accepted its first students in 1974. The capacity of the School is small. To date, no more than twenty students have been accepted for entrance annually and the output has been twenty students or fewer each year. The *Jurupulih Anggota* (Physical Therapist) works in General Hospitals, District Hospitals, University Hospitals and Army Hospitals or in private medical centers.

Admission to the School of Physical Therapy requires the SPM with a Pass in *Bahasa Malaysia* (including the oral test) and Credits in Mathematics or Additional Mathematics and any science other than Health Science. Consideration is being given to increasing the requirements to three credits. Candidates must be able to speak, read and write in English. Most of the textbooks are in English; however, basic science texts, such as anatomy and physiology, are in *Bahasa Malaysia*.

The three-year course (*Kursus Fisioterapi*) requires two years of fairly intensive didactic work (see Table 7.3 for the curriculum in physical therapy), followed by a forty-week period of supervised practical experience. Consideration is being given to updating the curriculum and revising the supervision system. The first year of the course emphasizes the basic sciences, while the second year focuses on professional coursework and supervised clinical experience. After the practical training period, students return to the school for a month-long session of review and correction (referred to as "revision work") as designated by the faculty. Clinical experience in the third year includes six months in General Hospitals in other states and four weeks of training each in the University Hospital, the spastic center and the rehabilitation unit in Cheras. A fourth unit of four weeks is divided between a Hansen's disease (leprosy) center and a tuberculosis center. During the clinical practice period, students work five days a week in the clinics and attend lectures on Saturdays. After the clinical training period, students have four more weeks of review ("revision") and then prepare for examinations.

Instructors for the Physical Therapy course hold Diplomas in Physical Therapy and Diplomas in Teaching (a sixteen-month course for teachers of physical therapy) plus at least six years of experience in the field. Most of the current faculty have been trained in physical therapy schools in Australia, the United Kingdom, and New Zealand.

The Physical Therapy School uses grades A through E for the courses. Comprehensive examinations are given at the end of each year with a written and practical exam at the end of three years. The final examination grades and classifications are: 75%–100% = Distinction, 60%–74% = Credit, 50%–59% = Pass, Below 50% = Fail. These final grades are not given to the student but may be provided directly to other schools requesting them. Consideration is being given to revising the examination system in order to give an exam in

Table 7.3. Curriculum for Physical Therapy

Subject	Hours of Instruction		
	First Year	Second Year	Third Year
Anatomy	250	–	–
Biochemistry	12	–	–
Ear, Nose & Throat	–	5	–
Electrotherapy	40	120	–
Ethics	5	–	–
Exercise Therapy	70	70	–
Kinesiology	100	100	–
Medicine	–	30	–
Intro. to Medicine	176	–	–
Clinical Conditions	30	–	–
Neurology	–	30	–
Nursing	12	–	–
Obstetrics & Gynecology	–	10	–
Occupational Therapy	4	–	–
Orthopedics	–	30	–
Intro. to Orthopedics	176	–	–
Clinical Conditions	30	–	–
Pathology	15	–	–
Physics	60	–	–
Physiology	100	–	–
Physical Therapy I	–	160	–
Physical Therapy II	–	160	–
Psychology	30	–	–
Soft Tissue Manipulation	100	70	–
Surgery	–	5	–
X-Ray	–	5	–
Clinical Experience	80	500	1,320
Revision Work	–	–	132
Library/Self Study	162	157	–
Total Hours	1,452	1,452	1,452

SOURCE: Information supplied by the Director, School of Physiotherapy, 1985.

the basic sciences at the end of the first year and a comprehensive exam at the end of the second year.

The *Sijil Fisioterapi* (Certificate in Physical Therapy) is earned at the end of the course. Although the School is not authorized to offer a diploma, graduates are paid at the same scale as diploma holders.

Other Allied Health Training

Hospitals, institutes, laboratories and clinics in Malaysia offer training for the following allied health professions, listed in ascending order by entrance requirement and length of program. Students seeking admission to any of these programs must present the academic qualification listed (in effect 1985).

Pengawas Kesihatan Umum (Public Health Overseer): Six-month program offered at the Rural Health Training School in Jitra, Rembau and Batu Rakit. The SRP or its equivalent with a Pass in *Bahasa Malaysia* is required for admission. The *Sijil Pengawas Kesihatan Umum* (Certificate of Public Health Overseer) is awarded.

Penyelia Kesihatan Luar Bandar (Rural Health Supervisor, Sarawak): Nine-month course offered in Serian, Sarawak for which the SRP is required. The *Sijil Penyelia Kesihatan Luar Bandar* (Certificate of Rural Health Supervisor) is awarded.

Pembantu Kesihatan Luar Bandar (Rural Health Assistant): One-year course offered in Keningau, Sabah for which the SRP is required for admission. The *Sijil Pembantu Kesihatan Luar Bandar* (Certificate of Rural Health Assistant) is awarded.

Pembantu Teknologi Makmal Perubatan or *Pembantu Makmal Rendah* (Medical Laboratory Technology Assistant or Junior Laboratory Assistant): One-year course offered at the Institute for Medical Research in Kuala Lumpur. The SRP with a Pass in *Bahasa Malaysia* and Math and Credit in Science/Integrated Science, all taken at the same sitting, is required for admission. The *Sijil Pembantu Teknologi Makmal Perubatan* (Certificate of Medical Laboratory Technology Assistant) is awarded.

Pembantu Hospital Rendah (Junior Hospital Assistant): Two-year program offered at the Hospital Bahagia in Ulu Kinta, Perak; the Hospital Permai in Tampio, Johor; and the District Hospital in Miri. See *Pembantu Teknologi Makmal Perubatan* above for entrance requirements. The *Sijil Pembantu Hospital Rendah* (Certificate of Junior Hospital Assistant) is awarded.

Pembantu Pembedahan Pergigian (Dental Surgery Assistant): Two-year course offered at the Dental Training School in Pulau Pinang. See *Pembantu Teknologi Makmal Perubatan* above for entrance requirements. The *Sijil Pembantu Pembedahan Pergigian* (Certificate of Dental Surgery Assistant) is awarded.

Inspektor Kesihatan (Health Inspector): Three-year course taught at the Public Health Institute in Kuala Lumpur. Entrance requires the SPM with a Pass in *Bahasa Malaysia* (including oral test) and Credits in Math, a science and one other subject, all taken at one sitting. The *Sijil Inspektor Kesihatan* (Certificate of Health Inspector) is awarded.

Juru X-Ray (Radiographer or X-Ray Technician): Three-year course taught at the General Hospital in Kuala Lumpur. For entrance requirement, see

Inspektor Kesihatan. The *Sijil Teknologi X-Ray* (Certificate of X-Ray Technology) is awarded.

Jururawat Pergigian (Dental Nurse): Three-year course offered at the Dental Training School at Pulau Pinang. Requires for entrance the SPM with a Pass in *Bahasa Malaysia* (including oral test) and a Credit in Science, all taken at the same sitting. The *Sijil Kejururawatan Pergigian* (Certificate of Dental Nurse) is awarded.

Juruteknik Pergigian (Dental Technician): Three-year course taught at the Dental Training School at Pulau Pinang. See *Jururawat Pergigian* above for entrance requirements. The *Sijil Juruteknik Pergigian* (Certificate for Dental Technician) is awarded.

Juruteknologi Makmal Perubatan (Medical Laboratory Technologist): See *Jururawat Pergigian* above for length and entrance requirements. The *Sijil Juruteknologi Makmal Perubatan* (Certificate of Medical Laboratory Technologist) is awarded.

Pembantu Farmasi (Pharmaceutical Assistant): See *Jururawat Pergigian* above for length, location of training and entrance requirements. The *Sijil Pembantu Farmasi* (Certificate for Pharmaceutical Assistant) is awarded.

Pembantu Makmal Kimia Ubat (Pharmaceutical Laboratory Assistant): Three-year course offered at the training school in Petaling Jaya in the complex of the Pharmaceutical Production Laboratory and Store. See *Jururawat Pergigian* above for entrance requirements. The *Sijil Pembantu Makmal Kimia Ubat* (Certificate of Pharmaceutical Laboratory Assistant) is awarded.

Pembantu Perubatan (Medical Assistant): Three-year course taught at the General Hospital in Seremban and the Sarawak General Hospital in Kuching. See *Jururawat Pergigian* above for entrance requirements. The *Sijil Pembantu Perubatan* (Certificate of Medical Assistant) is awarded.

Pegawai Pelajaran Kesihatan (*Latihan Lepas Ijazah*) (Health Education Officer): Twenty-one-month postgraduate course offered at the Public Health Institute in Kuala Lumpur. Requires an honors degree in applied, behavioral or biological science from a local or recognized university plus an SPM Pass in *Bahasa Malaysia* (including oral test) for entrance. The *Sijil Pegawai Pelajaran Kesihatan* (Certificate of Health Education Officer) is awarded.

Chapter VIII

Placement Recommendations

The Role of the National Council on the Evaluation of Foreign Educational Credentials

The placement recommendations that follow have been approved by the National Council on the Evaluation of Foreign Educational Credentials. In order that these recommendations may be of maximum use to admissions officers, the following information on the development of the terminology used in stating the recommendations, along with instructions for their use, is offered by the Council and the World Education Series Committee.

The recommendations deal with all levels of formal education in roughly chronological order up through the highest degree conferred. Recommendations, as developed through discussion and consensus in the Council, are not directives. Rather, they are general guidelines to help admissions officers determine the admissibility and appropriate level of placement of students from the country under study.

The recommendations should be applied flexibly rather than literally. Before applying the recommendations, admissions officers should read the supporting pages in the text and take into account their own institutional policies and practices. For example, a recommendation may be stated as follows: ". . . may be considered for up to 30 semester hours of transfer credit. . ." The implication is that the U.S. institution may consider giving less than or as much as one year of transfer credit, the decision to be based on various factors—the currentness of the applicant's transfer study, applicability of the study to the U.S. curriculum, quality of grades, and the receiving institution's own policies regarding transfer credit. Similarly, the recommendation ". . . may be considered for freshman admission" indicates possible eligibility only; it is not a recommendation that the candidate be admitted. Although consideration for admission at the same level may be recommended for holders of two different kinds of diplomas, use of identical phrasing in the recommendations does not mean that the two diplomas are identical in nature, quality, or in the quantity of education they represent.

In most cases, the Council will not have attempted to make judgments about the quality of individual schools or types of educational programs within the system under study. Quality clues are provided by the author and must be inferred from a careful reading of the text.

Certain phrases used repeatedly in the recommendations have acquired, within Council usage, specific meanings. For example, "through a course-by-course analysis" means that in dealing with transfer credit, each course taken at the foreign institution is to be judged on an individual basis for its transferability to the receiving institution. Another phrase "where technical training is considered appropriate preparation" suggests that the curriculum followed by the candidate is specialized, and this wording is often a hint that within the foreign system the candidate's educational placement options are limited to certain curriculums. However, while the Council is aware of the educational policies of the country under study, the Council's policies are not necessarily set in conformity with that country's policies. Rather, the recommendations reflect U.S. philosophy and structure of education.

In voting on individual recommendations, Council decisions are made by simple majority. Although consistency among volumes is sought, some differences in philosophy and practice may occur from volume to volume.

Placement Recommendations

Note: When the length of a program is cited, it refers to the standard length of the program when pursued fulltime. The actual period of attendance may vary.

Credential	Entrance Requirements	Length of Study	Gives Access in Country to	Placement Recommendations
A. Primary and Secondary Education				
1. *Sijil Rendah Pelajaran* (SRP)/Lower Certificate of Education (LCE) or Sarawak Junior Certificate (SJ) (pp. 13–15)	Standard Six	3 years	Upper Secondary School (Form IV)	May be placed in grade 10.
2. Malaysian Independent Chinese Secondary School (MICSS) system Junior Middle Examination (pp. 29–30)	Standard Six	3 years	Senior Middle School in MICSS system	May be placed in grade 10.
3. *Sijil* ***Am*** *Pelajaran Malaysia*/Malaysian **General** Certificate of Education, Ordinary Level* (p. 22)	SRP/LCE	2 years	–	May be placed in secondary school on a year-for-year basis.
4. *Sijil Pertanian*/Certificate of Agriculture from one of the Institutes of Agriculture (pp. 31–32)	SRP/LCE	3 years	–	May be considered for postsecondary vocational training where the program completed is considered appropriate.

*Not a full SPM/MCE certificate.

5. *Sijil Pelajaran Vokesynal Malaysia* (SPVM)/ Malaysian Certificate of Vocational Education (MCVE) (pp. 26–27)	SRP/LCE	2 years	Polytechnic; certificate and diploma programs	May be considered for freshman admission where vocational preparation is considered appropriate.
6. *Sijil Pelajaran Malaysia* (SPM)/Malaysian Certificate of Education (MCE) (pp. 20–24)	SRP/LCE	2 years	Pre-university programs; certificate and diploma programs	May be considered for freshman admission.
7. Malaysian Independent Chinese Secondary School Unified Examination (MICSSUE) (pp. 29–31)	Junior Middle III	3 years	University entrance to non-Malaysian systems only; private school certificate and diploma programs	May be considered for freshman admission.
B. Pre-University Education				
8. *Sijil Am Pelajaran Malaysia*/Malaysian General Certificate of Education, Advanced Level† (p. 36)	SPM/MCE	2 years	–	Admission should be based on other credentials. May be considered for 6–10 semester credits for each subject passed at the Principal Level.
9. *Sijil Tinggi Persekolahan Malaysia* (STPM)/*Sijil Tinggi Persekolahan* (STP)/ Higher School Certificate (HSC) (pp. 34–36, 37–39)	SPM/MCE	2 years	University degree and diploma programs, other tertiary diploma programs	May be considered for admission with up to 6–10 semester credits for each subject passed at the Principal Level.

†Not a full certificate.

Credential	Entrance Requirements	Length of Study	Gives Access in Country to	Placement Recommendations
C. Teacher Training				
10. *Sijil Guru*/Teaching Certificate from a Teacher Training College (TTC) (pp. 45, 46–50)	SPM/MCE or SPVM/ MCVE; will consider HSC and first year university student with no advanced standing	2, 2.5 or 3 years (depending on dates attended)	Teaching Standards One through Six or Forms I through III, depending on the option	May be considered for undergraduate admission with up to 60 semester transfer credits determined through a course-by-course analysis.
11. Specializations				
a. *Sijil Guru* ____ / Specialist Teaching Certificate from a Teacher Training College (p. 50)	Certificate from TTC + 5 years' teaching experience	variable; up to 1 year	Teaching Standards One through Six or Forms I through III, depending on the option	May be considered for undergraduate admission with up to 30 semester transfer credits determined through a course-by-course analysis with careful attention to length of program.
b. Art Teacher Diploma (p. 98)	ITM Diploma in Art and Design, excluding photography	1 year	–	May be considered for undergraduate admission with up to 30 semester transfer credits determined through a course-by-course analysis.
12. Diploma in Education (pp. 53–54, 80, 82)	University Bachelor's degree	1 year	Teaching in Forms IV–VI	May yield graduate transfer credit determined through a course-by-course analysis.

D. University Education				
13. Certificate from a university (pp. 82, 86)	SPM/MCE	1–3 years full- or part-time	–	Should not be considered for admission or transfer credit on the basis of the certificate alone; validation policies of the U.S. institution may apply.
14. Advanced Certificate from a university (p. 82)	SPM/MCE + 3 year certificate	1 year	–	See Placement Recommendation #13.
15. Diploma from a university (pp. 84–85, 87, 88–89)	SPM/MCE	3–3.5 years	Advanced Diploma; degree program	May be considered for undergraduate admission with up to 60 semester transfer credits determined through a course-by-course analysis.
16. *Sarjana Muda* or *Bacelor*/ Bachelor's degree				
a. Pass (represents a minimal level of achievement) (p. 82)	STPM/STP/HSC/ university matriculation program	up to 3 years	–	May be considered for graduate admission where preparation is considered appropriate.
b. General (pp. 80–81)	See #16a	up to 3 years	Honors degree	See Placement Recommendation #16a.
c. Honors (p. 82)	See #16a	3 years	Graduate study	May be considered for graduate admission.
d. General or Honors (pp. 59–60, 80–81, 82–83, 84–85, 86–87, 88–89, 90)	See #16a	4–6 years	Graduate study	May be considered for graduate admission. May be considered to have the first professional degree in the field.

Credential	Entrance Requirements	Length of Study	Gives Access in Country to	Placement Recommendations
17. Postgraduate Diploma (pp. 80, 82, 88–89)	Bachelor's degree	1–2 years	Graduate study	May yield graduate transfer credit determined through a course-by-course analysis.
18. *Sarjana* or *Master*/ Master's degree (pp. 60, 80–81, 82–83, 84–85, 86–87, 88–89)	Bachelor's degree	1–3 years	Further graduate study	May be considered comparable to a master's degree from a U.S. institution.
19. *Doktor Falsafah*/Doctor of Philosophy (pp. 60, 80–81, 83, 84–85, 86–87)	Master's degree	2–5 years	–	May be considered to represent a level of achievement beyond the U.S. master's degree; it may approach and is sometimes comparable to a U.S. doctoral degree.
Professional Degrees in the Health Fields				
20. First Professional Degree				
a. Bachelor of Dental Surgery (p. 82)	See #16a	4 years	Graduate study	May be considered the first professional degree in the field.
b. M.B., B.S. = Bachelor of Medicine, Bachelor of Surgery (p. 82); M.D. = Doctor of Medicine (pp. 77–78, 81, 87)	See #16a	5 or 6 years	Graduate study	See Placement Recommendation #20a.
c. D.V.M. = Doctor of Veterinary Medicine (p. 85)	See #16a	5 years	Graduate study	See Placement Recommendation #20a.

21. Master's degree in Medicine or Surgery (p. 81)	M.B., B.S. or M.D.	4 years	–	May be considered to represent a specialization in medicine similar to completion of a residency in U.S. medical education.
E. Postsecondary Diploma and Certificate Programs				
22. Certificates of Continuing and In-Service Education from IPPN, INTAN, the Rubber Research Institute, etc. (pp. 101, 116–120)	variable	variable	–	May be considered for transfer credit determined in accordance with institutional policies for Continuing Education Units (CEU's) from U.S. institutions.
23. Certificate (pp. 103, 104–107)	SPM/MCE	variable up to 39 months	Selected diploma programs	Should not be considered for transfer credit on the basis of the certificate alone; validation policies of the U.S. institution may apply.
24. Diploma Based on SPM/MCE				
a. 1 year Diploma (p. 100)	SPM/MCE	1 year	–	Primarily a vocational qualification. Admission and placement should be based on other credentials.
b. 2 year Diploma (p. 100)	SPM/MCE	2 years	–	See Placement Recommendation #24a.
c. 2.5 year Diploma in Science (p. 100)	SPM/MCE	2.5 years	Local university transfer	May be considered for undergraduate admission with up to 30 semester transfer credits determined through a course-by-course analysis.

Credential	Entrance Requirements	Length of Study	Gives Access in Country to	Placement Recommendations
d. 3 year Diploma (pp. 99–100)	SPM/MCE	3 years	Advanced Diploma in same field	May be considered for undergraduate admission where the course completed is considered appropriate preparation. May yield up to 60 semester transfer credits determined through a course-by-course analysis.
e. 4 year Diploma (p. 98)	SPM/MCE	4 years	–	May be considered for undergraduate admission where the course completed is considered appropriate preparation. May yield up to 80 semester transfer credits determined through a course-by-course analysis.
25. Diploma (pp. 98, 103)	STPM/HSC	3 years	–	May be considered for undergraduate admission with up to 90 semester transfer credits determined through a course-by-course analysis.
26. Advanced Diploma				
a. in Business Administration from ITM (p. 98)	SPM/MCE	4 years	–	May be considered for undergraduate admission with up to 80 semester transfer credits determined through a course-by-course analysis.

b. in _____ (specialization) (pp. 97–98)	3 year ITM Diploma	2 years	–	May be considered for graduate admission with possible undergraduate deficiencies.
27. Certificate in Executive Development (p. 97)	Bachelor's degree	3 months	–	Represents postgraduate continuing education.
28. Postgraduate Diploma (p. 97)	Bachelor's degree	1 year	–	May yield graduate transfer credit determined through a course-by-course analysis.
29. Coursework at private colleges, such as KDU, MSM or PJCC, which are patterned after U.S. community colleges. (pp. 124–128)	Variable but SPM/ MCE or equivalent is minimum required	up to 2 years	Further education outside Malaysia	May be considered for transfer credit as from an unaccredited U.S. postsecondary institution, determined through a course-by-course analysis.
F. Allied Health Professions				
30. Allied Health Certificates Based on SRP/LCE				
a. *Sijil Pengawas Kesihatan Umum*/Certificate of Public Health Overseer (p. 137)	SRP/LCE	6 months	–	May be placed in secondary school on a year-for-year basis where the courses completed are considered appropriate preparation for the year in which the student is placed.
b. *Sijil Penyelia Kesihatan Luar Bandar*/Certificate of Rural Health Supervisor (Sarawak) (p. 137)	SRP/LCE	9 months	–	See Placement Recommendation #30a.

Credential	Entrance Requirements	Length of Study	Gives Access in Country to	Placement Recommendations
c. *Sijil Pembantu Kesihatan Luar Bandar*/Certificate of Rural Health Assistant (Sabah) (p. 137)	SRP/LCE	1 year	–	See Placement Recommendation #30a.
d. *Sijil Pembantu Teknologi Makmal Perubatan* or *Pembantu Makmal Rendah*/ Certificate of Medical Laboratory Technology Assistant (p. 137)	SRP/LCE	1 year	–	See Placement Recommendation #30a.
e. *Sijil Penolong Jururawat*/ Certificate of Assistant Nurse (p. 132)	SRP/LCE	1 year	–	See Placement Recommendation #30a.
f. *Sijil Bidan Bahagian* II/ Certificate of Midwife Division II (p. 133)	SRP/LCE	2 years	–	See Placement Recommendation #30a.
g. *Sijil Pembantu Hospital Rendah*/Certificate of Junior Hospital Assistant (p. 137)	SRP/LCE	2 years	–	See Placement Recommendation #30a.
h. *Sijil Pembantu Pembedahan Pergigian*/Certificate of Dental Surgery Assistant (p. 137)	SRP/LCE	2 years	–	See Placement Recommendation #30a.
i. *Sijil Jururawat Masyarakat*/ Certificate of Community Nurse (p. 132)	SRP/LCE	2.5 years	–	See Placement Recommendation #30a.

j.	*Sijil Jururawat Desa*/ Certificate of Rural Nurse (pp. 130–132)	SRP/LCE	2.5 years	–	See Placement Recommendation #30a.
k.	*Sijil Jururawat Kesihatan Luar Bandar*/Certificate of Rural Health Nurse (p. 132)	SRP/LCE	2.5 years	–	See Placement Recommendation #30a.
31.	Allied Health Certificates Based on SPM/MCE				
a.	*Sijil Fisioterapi*/Certificate of Physiotherapy (pp. 135–136)	SPM/MCE	3 years	–	Admission should be based on other credentials. May yield undergraduate transfer credit determined through a course-by-course analysis where preparation is considered appropriate.
b.	*Sijil Inspektor Kesihatan*/ Certificate of Health Inspector (p. 137)	SPM/MCE	3 years	–	See Placement Recommendation #31a.
c.	*Sijil Jurupulih Cara Kerja*/ Certificate of Occupational Therapy (pp. 133–134)	SPM/MCE	3 years	–	See Placement Recommendation #31a.
d.	*Sijil Juruteknik Pergigian*/ Certificate of Dental Technician (p. 138)	SPM/MCE	3 years	–	See Placement Recommendation #31a.
e.	*Sijil Juruteknologi Makmal Perubatan*/Certificate of Medical Laboratory Technologist (p. 138)	SPM/MCE	3 years	–	See Placement Recommendation #31a.
f.	*Sijil Kejururawatan*/ Certificate of Staff Nurse (pp. 130, 131)	SPM/MCE	3 years	–	See Placement Recommendation #31a.

Credential	Entrance Requirements	Length of Study	Gives Access in Country to	Placement Recommendations
g. *Sijil Kejururawatan Pergigian*/Certificate of Dental Nurse (p. 138)	SPM/MCE	3 years	–	See Placement Recommendation #31a.
h. *Sijil Pembantu Farmasi*/ Certificate of Pharmaceutical Assistant (p. 138)	SPM/MCE	3 years	–	See Placement Recommendation #31a.
i. *Sijil Pembantu Makmal Kimia Ubat*/Certificate of Pharmaceutical Laboratory Assistant (p. 138)	SPM/MCE	3 years	–	See Placement Recommendation #31a.
j. *Sijil Pembantu Perubatan*/ Certificate of Medical Assistant (p. 138)	SPM/MCE	3 years	–	See Placement Recommendation #31a.
k. *Sijil Teknologi X-Ray*/ Certificate of X-Ray Technology (pp. 137–138)	SPM/MCE	3 years	–	See Placement Recommendation #31a.
32. Nursing Specialization (p. 133)	Certificate of Staff Nurse	4–12 months	–	Primarily a professional qualification.
33. *Sijil Pegawai Pelajaran Kesihatan*/Certificate of Health Education Officer (p. 138)	B.S. (Hons.)	21 months	–	May yield graduate transfer credit determined through a course-by-course analysis.

Appendix A

Malaysian Independent Chinese Secondary Schools

Beaufort Middle School
P.O. Box 111
Beaufort, Sabah, Malaysia

Catholic High School
P.O. Box No. 383
Sibu, Sarawak, Malaysia

Chinese High School
Jalan Tanjong Laboh
Batu Pahat, Johore, Malaysia

Chong Hwa High School
Jalan Sekolah Chong Hwa
Kluang, Johore, Malaysia

Chong Hwa High School
Rengit
Batu Pahat, Johore, Malaysia

Chong Hwa Independent High School
Jalan St. Thomas, 3 1/2 miles
Off Jalan Ipoh
Kuala Lumpur, Malaysia

Chung Hua High School
P.O. Box No. 154, Seremban
Negeri Sembilan, Malaysia

Chung Hua Independent High School
129, Jalan Raja Timor
Klang, Selangor, Malaysia

Chung Hua Middle School
Port Dickson
Negeri Sembilan, Malaysia

Chung Hua Middle School No. 1
P.O. Box No. 328
Kuching, Sarawak, Malaysia

Chung Hua Middle School No.3
P.O. Box No. 558
Kuching, Sarawak, Malaysia

Chung Hwa High School
14, Jalan Junid
Muar, Johore, Malaysia

Chung Hwa Independent High School
Kota Bharu
Kelantan, Malaysia

Chung Hwa Middle School
P.O. Box 1244 Kuching
Kuching, Sarawak, Malaysia

Chung Ling (Private) High School
Kampong Bahru
Penang, Malaysia

Citizen Middle School
P.O. Box No. 31, Sungei Sipau
Sibu, Sarawak, Malaysia

Confucian Private Secondary School
Lorong Davidson
Kuala Lumpur, Malaysia

Foon Yew High School
59-C, Jalan Ibrahim Sultan
Johore Bahru, Johore, Malaysia

Guong Ming Middle School
P.O. Box No. 398
Sibu, Sarawak, Malaysia

Han Chiang High School
Jalan Han Chiang
Penang, Malaysia

Hin Hua School
141, Jalan Teluk Gadung Musa
Klang, Selangor, Malaysia

Hua Lian High School
No. 2, Jalan Tokong
Taiping, Perak, Malaysia

Jit Sin Independent High School
Jalan Aston, Bukit Mertajam
Province Wellesley, Malaysia

Kai Dee Middle School
5-C, Ground Floor, Lai Chee Lane
Sibu, Sarawak, Malaysia

Keat Hwa Middle School (Independent)
Jalan Lumpur
Alor Star, Kedah, Malaysia

Kian Hing Middle School
P.O. Box No. 246, Sg. Teku
Sibu, Sarawak, Malaysia

Kian Kok Middle School
P.O. Box 965
Kota Kinabalu, Sabah, Malaysia

Kuen Cheng Girl's High School
Jalan Lornie
Kuala Lumpur, Malaysia

Kwang Hua (Private) High School
Eng Ann Housing Estate
Klang, Selangor, Malaysia

Lahad Datu Secondary School
P.O. Box 246
Lahad Datu, Sabah, Malaysia

Min Lit Secondary School
P.O. Box 1222
Kuching, Sarawak, Malaysia

Ming Lik Secondary School
P.O. Box 131
Sarikei, Sarawak, Malaysia

Nan Hwa High School
No. Lot 2446, Sg. Wangi
Sitiawan, Perak, Malaysia

Papar Middle School
P.O. Box 142
Papar, Sabah, Malaysia

Pay Fong Middle School
40, Kampong Empat
Kubu, Malacca, Malaysia

Pei Chun High School (Independent)
P.O. Box No. 3
Pontian, Johore, Malaysia

Pei Hwa High School
53, Sungei Mati
Muar, Johore, Malaysia

Pei Min Middle School
P.O. Box 197
Miri, Sarawak, Malaysia

Pei Tsin High School
P.O. Box 227
Kudat, Sabah, Malaysia

Pei Yuan High School
9, Dipang Road
Kampar, Perak, Malaysia

Penang Chinese Girls High School (Private)
No. 2, Jalan Goltlieb
Penang, Malaysia

Perak Yuk Choy High School (Private)
No. 6, Jalan Kuala Kangsar
Ipoh, Perak, Malaysia

Phor Tay Private High School
19-A, Jalan Bagan Jermal
Penang, Malaysia

Pin Hwa High School
13, Jalan Goh Hock Huat
Klang, Selangor, Malaysia

Poi Lam High School
Lot. 18274, Jalan Pulai Pangkalan
Lahat, Perak, Malaysia

Riam Road Middle School
P.O. Box 209
3 1/2 miles, Riam Road
Miri, Sarawak, Malaysia

Sabah Chinese High School
P.O. Box 489
Tawau, Sabah, Malaysia

Sabah Tshung Tsin Secondary School
P.O. Box 1135
Kota Kinabalu, Sabah, Malaysia

San Min Independent Chinese Secondary School
Jalan Sungai Nibong
Teluk Anson, Perak, Malaysia

Serian Public Secondary School
P.O. Box 37
Serian, Sarawak, Malaysia

Shen Jai Secondary School
21-A, Jalan Bendahara
Ipoh, Perak, Malaysia

Sin Min High School (Independent)
10, Jalan Merbok
Sungei Petani, Kedah, Malaysia

Sin Min Middle School (Private)
Sungei Korok
Alor Star, Kedah, Malaysia

Tenom Tshung Tsin Secondary School
P.O. Box 156
Tenom, Sabah, Malaysia

Tsun Jin High School
No. 6, Jalan Loke Yew
Kuala Lumpur, Malaysia

Tsung Wah Private Secondary School
66-B, Jalan Low
Kuala Kangsar, Perak, Malaysia

Wong Nai Siong Secondary School
P.O. Box 933
Sibu, Sarawak, Malaysia

Yik Ching High School
Pantai Remis
Dindings, Perak, Malaysia

Yong Peng High School
Jalan Sekolah China
Yong Peng, Johore, Malaysia

Yu Yuan Secondary School
P.O. Box 968
Sandakan, Sabah, Malaysia

Appendix B

Institutes of Agriculture

Institut Pertanian Air Hitam/Air Hitam Institute of Agriculture, Air Hitam, Kluang, Johor, Malaysia.

Institut Pertanian Besut/Besut Institute of Agriculture, Kg. Tok Dor, Jerteh, Trengganu, Malaysia.

Institut Pertanian Bumbong Lima/Bumbong Lima Institute of Agriculture, Bumbong Lima, Kepala Batas, Seberang Perai, Malaysia.

Institut Pertanian Kuala Lipis/Kuala Lipis Institute of Agriculture, Jalan Barry, Kuala Lipis, Pahang, Malaysia.

Institut Pertanian Parit/Parit Institute of Agriculture, Titi Gantong, Batal Kiri, Perak, Malaysia.

Institut Pertanian Serdang/Serdang Institute of Agriculture, Peti Surat 206, Pejabat Pos UPM, Serdang, Selangor, Malaysia.

Appendix C

STPM Examination Subjects, Principal and Subsidiary Levels

The list of papers, furnished by the Examination Council, Ministry of Education, assumes that on any one examination no candidate will offer more than five subjects, including the General Paper, subjects with identical titles at more than one level, more than one of the alternatives in any subject, or any combination of subjects or papers forbidden by the subject syllabi. STPM candidates will offer the General Paper and either at least three subjects at Principal Level or two Principal subjects and two Subsidiary subjects at one examination. Candidates for the *Sijil **Am** Pelajaran*/General Certificate of Education (GCE) may enter for one or more Advanced or Ordinary Level subjects.

In the listing below, the subject precedes the conditions relative to each subject. The subject/paper name follows. For more details on the *Sijil Tinggi Persekolahan Malaysia/Sijil Tinggi Persekolahan*/Higher School Certificate, see Chapter III. For information on the *Sijil **Am** Pelajaran*/General Certificate of Education, see Chapter II or III.

STPM Principal Level Subjects

Accounting (3 hrs. each paper): Papers 1, 2.

Applied Mathematics (3 hrs. each paper): Papers 1, 2. Note: May not be taken with Math (STPM Subsid./GCE O Level), Math "A" and "B" or Further Math.

Art (3 hrs. each for Papers 1–5, 7): Three papers including one of 1–3 and one of 4–6. Note: Paper 6 is available to school candidates only.

1) Drawing or Painting from Still Life, 2) Drawing or Painting from Nature, 3) Drawing or Painting from a Living Person, 4) Original Imaginative Composition in Color, 5) Crafts "A," 6) Crafts "B," 7) Historical & Critical.

Biology: Papers 1, 2, 3; either 4 or 5.

1) Essay, 2.5 hrs.; 2) Short Answer Structured Questions, 1.5 hrs.; 3) Multiple Choice, 1 hr.; 4) Practical Test A, 3 hrs.; 5) Practical Test B, 3 hrs.

Chemistry: Papers 1, 2, 3; either 4 or 5 or 6. Note: May not be taken with Additional Chemistry (STPM Subsid./GCE O Level) or Physical Science.

1) Essay, 2.5 hrs.; 2) Short Answer Structured Questions, 1.5 hrs.; 3) Multiple Choice, 1 hr.; 4) Practical Test A, 3.25 hrs.; 5) Practical Test B, 3.25 hrs.; 6) Practical Test C, 3.25 hrs.

Divinity (2.5 hrs. each paper): Three Papers of 1, 2, 3, 4.

l) Prophets of the Old Testament, 2) The Four Gospels, 3) The Apostolic Age, 4) Modern Church History.

Economics: Papers 1 and 2.

1) Multiple Choice Test, 1.75 hrs.; 2) Essays, 2.5 hrs.

Economic & Public Affairs (2.5 hrs. each paper): Two of 1–4.

1) Economics, 2) Structure & Working of British Government, 3) World Affairs Since 1945, 4) English Social & Economic History, 1815–1951.

English (2.5 hrs. each paper): Either Papers 2 or 3 and any two of Papers 1, 4–6, *or* 2 and 3, one of 1, 4–6.

1) Critical Appreciation & Comment, 2) Shakespeare, 3) Chaucer & Other Major Authors, 4) The Period c. 1760–1832, 5) Literature of the Victorian Age, 6) English Literature Since 1900.

French: Papers 1, 2, 3, 4, 5.

1) Prose Composition & Essay, 2.5 hrs.; 2) Unprepared Translation, 2 hrs.; 3) Prescribed Texts, 2.5 hrs.; 4) Dictation, 0.5 hrs.; 5) Oral.

Further Mathematics (3 hrs. each paper): Papers 1, 2. Note: May not be taken with Math or Statistics (both STPM Subsid./GCE O Level); Math "A," Pure Math, Applied Math, Statistics.

Geography (2.5 hrs. for Papers 1–3, 2 hrs. for Paper 4): Papers 1 and 4 with either 2 or 3. Note: A special Paper 4 is sought for candidates in Malaysia.

1) Physical, 2) Regional, 3) Alternative to Paper 2, 4)—.

Geometrical & Building Drawing: Papers 1, 2, 3. Note: May not be taken with Geometrical & Mechanical Drawing.

1) Applied Geometry, 3 hrs.; 2) Building Drawing, 2.5 hrs.; 3) Building Theory, 1.5 hrs.

Geometrical & Mechanical Drawing (3 hrs. each paper): Papers 1, 2. Note: May not be taken with Geometrical & Building Drawing.

1) Applied Geometry, 2) Engineering Drawing.

German: Papers 1, 2, 3, 4, 5. See French for paper names and hours.

History (2.5 hrs. each paper): Two papers from 1 or 2 or 3, 4 or 5, 6, 7 or 8, and 12 or 13 (see below). Three papers from the same subject groupings may be taken and assessment will be made on the best two papers. One of Papers 14, 15, 16, 17 plus one (or two) from 1 or 2 or 3, 4 or 5, 6, 7 or 8, and 12 or 13.

1) English History to c. 1500; 2) English History, 1450–1964; 3) English Social & Economic History, 1815–1951; 4) European History, A.D. 337–1500; 5) European History, 1450–1964; 6) History of S.E., S. & E. Asia, 1824–1954; 7) World Affairs Since 1945; 8) Structure & Working of British Government; 12) Australia & New Zealand, 1830–1901; 13) History of Tropical Africa, 1855–1914; 14) World History Before 1497; 15) Islamic History; 16) Indian History to 1525; 17) Indian History, 1525–1947.

Mathematics "A" (3 hrs. each paper): Papers 1, 2. Note: May not be taken with Statistics (STPM Subsid./GCE O Level), Pure Math, Applied Math, Further Math, Statistics.

Mathematics "B" (3 hrs. each paper): Papers 1, 2. Note: May not be taken with Statistics (STPM Subsid./GCE O Level), Pure Math, Applied Math, Statistics.

Music: Papers 1, 2, 3. Note: All candidates must have passed the Practical Exam (Grade VI or higher) of the Associated Board of the Royal Schools of Music.

1) Harmony, 3 hrs.; 2) Outlines of Musical History & Prescribed Works, 3 hrs.; 3) Aural Tests, approx. 0.5 hrs.

Physics: Papers 1, 2, 3; either 4 or 5 or 6. Note: May not be taken with Additional Physics (STPM Subsid./GCE O Level), or Physical Science.

1) Theory, 2.5 hrs.; 2) Multiple Choice, 1.25 hrs.; 3) Theory, 1.5 hrs.; 4) Practical Test "A," 3.25 hrs.; 5) Practical Test "B," 3.25 hrs.; 6) Practical Test "C," 3.25 hrs.

Pure Mathematics (3 hrs. each paper): Papers 1, 2. Note: See Applied Math for restrictions.

Statistics (3 hrs. each paper): Papers 1, 2. Note: See Applied Math for restrictions.

STPM Subsidiary Subjects

Additional Chemistry: Papers 1, 2. Note: May not be taken with Chemistry, Physical Science (both STPM Prin./GCE A Level).

1) Theory, 2.5 hrs.; 2) Practical Test, 2 hrs.

Additional Physics (2.5 hrs. each paper): Papers 1, 2. Note: May not be taken with Physics, Physical Science (both STPM Prin./GCE A Level).

1) Theory, 2) Practical Test.

Art: Two of seven Principal subject papers in Art including at least one of Papers 4, 5, and 6.

Biology: Papers 1, 2.

1) Theory, 2.5 hrs.; 2) Practical Test, 2 hrs.

British Government (2.5 hrs.): Paper 1 (Structure & Working of British Government).

Divinity (2.5 hrs. each paper): Papers 2, 3.

2) The Four Gospels, 3) The Apostolic Age.

Economics: Paper 1 (Economics).

English (2.5 hrs.): Paper 1.

English (2.5 hrs. each paper): Papers 1, 2, 4.

1) Critical Appreciation and Comment, 2) Shakespeare, 4) The Period c. 1760–1832.

French Literature (2 hrs.): Paper 3.

Further French Studies: Paper 1 and Paper 5.

1) Written, 2.5 hrs.; 5) Oral (optional).

General Paper: Papers 1, 2. Note: Compulsory subject for the STPM exam. Papers 1 and 2 taken together in one session of 2.66 hrs.

Geography (2.5 hrs.): Paper 1.

History (2.5 hrs. each paper): Papers 2, 5, 6, 12, 13, 14, 15. Note: Paper 6 is available in Malaysia and Brunei only. Papers 14 and 15 are available in Malaysia, Singapore and Brunei only.

2) English History, 1450–1964; 5) European History, 1450–1964; 6) History of S.E., S. & E. Asia, 1824–1954; 12) Australia & New Zealand, 1830–1901; 13) History of Tropical Africa, 1855–1914; 14) World History Before 1497; 15) Islamic History.

Mathematics (2.5 hrs. each): Papers 1, 2. Note: May not be taken with Statistics (STPM/GCE O Level), Pure Math, Applied Math, Further Math, Statistics (all STPM Prin./GCE A Level).

Music: Papers 1, 2.

1) Theory, 2.5 hrs.; 2) Aural Tests, approx. 0.5 hrs.

Statistics (3 hrs.): Paper 1. Note: May not be taken with Math (STPM Subsid./GCE O Level), Math "A" and "B," Further Math (all STPM Prin./GCE A Level).

World Affairs Since 1945 (2.5 hrs.): Paper 1.

Appendix D

Teacher Training Colleges

1. Fully Residential Colleges

Maktab Perguruan Bahasa, Jalan Pantai Baru, Kuala Lumpur, Wilayah Persekutuan, Malaysia.
Maktab Perguruan Batu Lintang, Kuching, Sarawak, Malaysia.
Maktab Perguruan Gaya, Kota Kinabalu, Sabah, Malaysia.
Maktab Perguruan Ipoh, Hulu Kinta, Ipoh, Perak, Malaysia.
Maktab Perguruan Kent, Tuaran, Sabah, Malaysia.
Maktab Perguruan Perempuan Melayu, Jalan Tun Fatimah, Durian Duan, Melacca, Malaysia.
Maktab Perguruan Persekutuan, Bt. Coombe, Gelugor, Pulau Pinang, Malaysia.
Maktab Perguruan Rajang, Binatang, Sarawak, Malaysia.
Maktab Perguruan Sandakan, Bt. 1 1/2, Jalan Labuk, Sandakan, Sabah, Malaysia.
Maktab Perguruan Sarawak, Miri, Sarawak, Malaysia.
Maktab Perguruan Sultan Abdul Halim, Jalan Kuala Ketil, Sg. Petani, Kedah, Malaysia.
Maktab Perguruan Sultan Idris, Jalan Slim, Tanjong, Malim, Perak, Malaysia.
Maktab Perguruan Trengganu, Batu Rakit, Kuala Trengganu, Malaysia.

2. Semi-Residential Colleges

Maktab Perguruan Ilmu Khas, Jalan Cheras, Kuala Lumpur, Wilayah Persekutuan, Malaysia.
Maktab Perguruan Islam, Jalan Pantai Baru, Lembah Pantai, Kuala Lumpur, Wilayah Persekutuan, Malaysia.
Maktab Perguruan Kota Bharu, Jalan Pengkalan Chepa, Kota Bharu, Kelantan, Malaysia.
Maktab Perguruan Lembah Pantai, Jalan Pantai Baru, Lembah Pantai, Kuala Lumpur, Wilayah Persekutuan, Malaysia.
Maktab Perguruan Pasir Panajang, Jalan Pasir Panjang, Kuala Trengganu, Malaysia.
Maktab Perguruan Teknik, Jalan Tenteram, Bandar Tun Razak, Wilayah Persekutuan, Malaysia.
Maktab Perguruan Temenggong Ibrahim, Jalan Larkin, Johor Bahru, Johor, Malaysia.

3. Nonresidential Colleges

Maktab Perguruan Kinta, Jalan Dairy, Ipoh, Perak, Malaysia.
Maktab Perguruan Mohd. Khalid, Jalan Abdul Samad, Johor Bahru, Johor, Malaysia.
Maktab Perguruan Raja Melewar, Jalan Sikamat, Seremban, Negeri Sembilan, Malaysia.
Maktab Perguruan Seri Kota, Kalan Kuantan, Off Jalan Tun Razak, Kuala Lumpur, Wilayah Persekutuan, Malaysia.
Maktab Perguruan Sri Pinang, Jalan Ahmad Shah, Pulau Pinang, Malaysia.

4. Residential Classification Unknown

Maktab Perguruan Kuantan, Jalan Gambut, Kuantan, Pahang, Malaysia.

5. Location of Projected New Colleges (announced in fifth Malaysia Plan 1986)

Bangi, Batu Pahat, Kangar, Penang and Seremban.

Appendix E

Acronyms and Initialisms Used in Text

ACA	Association of Certified Accountants (U.K.)
AIAME	Associate/Institute of Automotive Mechanical Engineers (Aust.)
AMIMI	Associate/Institute of Motor Industry (U.K.)
AMIRTEC	Associate Member/Institute of Road Transport Engineers (U.K.)
CGLI	City and Guilds of London Institute
CIOB	Chartered Institute of Building (U.K.)
ICMA	Institute of Cost & Management Accountants (U.K.)
ICSA	Institute of Chartered Secretaries & Administrators
IDP&M	Institute of Data Processing & Management (U.K.)
IEE	Institution of Electrical Engineers (London)
IERE	Institution of Electronics & Radio Engineers (London)
IME	Institution of Mechanical Engineers (London)
INTAN	Institut Tadbiran Awam Negara/National Institute of Public Administration
IOM	Institution of Meteorologists (U.K.)
IPPN	Institut Pengurusan Pendidikan Negara/National Institute of Educational Management
IQS	Institution of Quantity Surveyors
ISM	Institut Senilukis Malaysia/Malaysian Institute of Art
ITB	Institut Teknoloji Butterworth/Butterworth Institute of Technology
ITF	Institut Teknologi Federal/Federal Institute of Technology
ITM	Institut Teknologi MARA/MARA Institute of Technology
KDU	Kolej Damansara Utama/Damansara Utama College
KUSZA	Kolej Ugama Sultan Zainal Abidin/Sultan Zainal Abidin Religious College
LCCI	London Chamber of Commerce and Industry
LLPPKK/NITTCB	Lembaga Latihan Perindustrian dan Persijilan Ketukangan Kebangsaan/National Industrial Training and Trade Certification Board
LTC	Learning Technology Center
MACPA	Malaysian Association of Certified Public Accountants
MEDEC	Malaysian Entrepreneurial Development Center
MESTI	Ministry of Education Staff Training Institute (also IPPN)
MICSS	Malaysian Independent Chinese Secondary School System
MICSSUE	Malaysian Independent Chinese Secondary School System Unified Examination
MIM	Malaysia Institute of Management
MSM	Maktab Sains MARA/MARA Science College
MSSEE	Malaysian Secondary School Entrance Examination

PAM	Pertubuhan Akitek Malaysia/Malaysian Institute of Architects
PAS	Politeknik Alor Star/Alor Star Polytechnic
PBP	Politeknik Batu Pahat/Batu Pahat Polytechnic
PJCC	Petaling Jaya Community College
PKB	Politeknik Kota Bharu/Kota Bharu Polytechnic
PKC	Politeknik Kuching/Kuching Polytechnic
PPD	Politeknik Port Dickson/Port Dickson Polytechnic
PDL/SFA	*Peperiksaan Darjah Lima*/Standard Five Assessment
PSAS	Politeknik Sultan Haji Ahmed Shah/Sultan Haji Ahmed Shah Polytechnic (formerly Kuantan Polytechnic)
PSD	Public Services Department (Malaysia)
PUO	Politeknik Ungku Omar Ipoh/Ungku Omar Polytechnic, Ipoh
RICS	Royal Institute of Chartered Surveyors (England)
RIDA	Rural and Industrial Development Authority
SEAMEO-RECSAM	SEAMEO Pusat Serantau Pendidikan Sains dan Matematik/ Southeast Asia Ministers of Education Organization Regional Center for Education in Science and Mathematics
SC/FMC/GCE	School Certificate/Federation of Malaya Certificate/General Certificate of Education
SIET	Singapore Institute of Engineering Technicians
SITC	Sultan Idris Training College
SJ	Sarawak Junior Certificate
SPM/MCE/GCE	*Sijil Pelajaran Malaysia*/Malaysian Certificate of Education/General Certificate of Education
SPVM/MCVE	*Sijil Pelajaran Vokasynal Malaysia*/Malaysian Certificate of Vocational Education
SRP/LCE	*Sijil Rendah Pelajaran*/Lower Certificate of Education
STPM/STP/HSC	*Sijil Tinggi Persekolahan Malaysia/Sijil Tinggi Persekolahan*/Higher School Certificate
TAR College	Kolej Tunku Abdul Rahman/Tunku Abdul Rahman College
TnCSI	Technician/Construction Surveyors' Institute
TTC	Teacher Training Colleges
UCLES	University of Cambridge Local Examination Syndicate
UCSCAM	United Chinese Schools Committees' Association of Malaysia
UCSTAM	United Chinese School Teachers' Association of Malaysia
UIA	Universiti Islam Antarabangsa/International Islamic University
UKM	Universiti Kebangsaan Malaysia/National University of Malaysia
ULP	Unit Latihan Perhutanan/Forestry College
UM	Universiti Malaya/University of Malaya
UPM	Universiti Pertanian Malaysia/University of Agriculture, Malaysia
UPU	Unit Pusat Universiti/University Central Admissions Unit
USM	Universiti Sains Malaysia/University of Science, Malaysia
UTM	Universiti Teknologi Malaysia/University of Technology, Malaysia
UUM	Universiti Utara Malaysia/Northern University of Malaysia

Glossary

Agama (also *Ugama*)	Religion
Akaun	Accounts
Aliran	Medium
Amal Beng Kejuruteraan (Also *Latihan Workshop Kejuruteraan, Kejuruteraan Bangkel Latihan*)	Engineering Workshop Practice
Amat Baik	Distinction
Anthropologi	Anthropology
Awam	Civil
Bacelor (also *Sarjana Muda, Sarjanamuda*)	Bachelor's Degree
Bahasa Arab	Arabic Language
Bahasa Cina	Chinese Language
Bahasa Ibunda	Mother Tongue
Bahasa Inggeris	English Language
Bahasa Malaysia	Malay Language
Bahasa Perancis	French Language
Bahasa Punjab	Punjabi Language
Bahasa Tamil	Tamil Language
Bahasa Telegu	Telegu Language
Binaan Bangunan	Building Construction
Biologi	Biology
Biologi Kemanusiaan dan Kemasyarakatan	Human and Social Biology
Bumiputra (also *Bumiputera*)	Native Malay People/Sons of the Soil
Buruk	Poor
Camerlang	Distinction
Dengan Kepujian	With Honors
Dikecualikan	Exempted
Diploma	Diploma
Doktor Falsafah	Doctor of Philosophy
Dua	Two
Ekonomi	Economics
Ekonomi dan Hal-ehwal Awam	Economic and Public Affairs
Empat	Four
Enam	Six
Fesyen dan Fabrik	Fashion and Fabric
Fizik	Physics
Gagal	Fail
Geografi	Geography

Gred	Grade
Gubahan	Design
Gubahan Fikiran	Imaginative Composition in Art
Hisab Perdagangan	Commercial Arithmetic
Ijazah	Educational Certificate, Diploma
Ilmu	Study or Knowledge
Ilmu Alam	Geography
Ilmu Hisab	Mathematics
Ilmu Hisab Tambahan	Additional Mathematics
Ilmu Kemasyarakatan	Social Studies
Ilmu Sains	Science
Ilmu Senibina	Architecture
Ilmu Ukur	Surveying
Jahitan dan Membuat Pakaian	Needlework and Dressmaking
Jentera	Mechanical
Jumlah	Total
Jurusan	Department
Kajihayat	Biology
Kajisawat Motor/Petrol dan Disel	Automotive Mechanics/Gas and Diesel
Kebangsaan	National
Kejuruteraan	Engineering
Kejuruteraan Awam	Civil Engineering
Kejuruteraan Bangkel Latihan (also *Amal Beng Kejuruteraan, Latihan Workshop Kejuruteraan*)	Engineering Workshop Practice
Kejuruteraan Elektrik (Kuasa)	Electrical Engineering (Power)
Kejuruteraan Elektrik (Perhubungan)	Electrical Engineering (Communica.)
Kejuruteraan Jentera	Mechanical Engineering
Kejuruteraan Jentera (Aeronautik)	Mechanical Engineering (Aeronautics)
Kejuruteraan Jentera (Marin)	Mechanical Engineering (Marine)
Kejuruteraan Kimia	Chemical Engineering
Kejuruteraan Petroliam	Petroleum Engineering
Kelas Peralihan	Remove Class
Kelayakan	Qualification
Kemanusiaan	Humanities
Kerja Kepingan Logam dan Kimpalan	Sheet Metalwork and Welding
Kerjakayu dan Binaan Bangunan	Woodworking and Building Construction
Kertas Am	General Paper
Kesihatan	Health
Kesusasteraan	Literature
Kimia	Chemistry
Kolej	College
Komunikasi Massa	Mass Communications
Kulliyyah	Faculty
Kurikulum	Curriculum
Kursus	Course
Lapan	Eight
Latihan	Training

Latihan Perdagangan	Commercial Practice
Latihan Workshop Kejuruteraan (also *Amal Beng Kejuruteraan, Kejuruteraan Bangkel Latihan*)	Engineering Workshop Practice
Letrik	Electric
Lima	Five
Lukisan	Art
Lukisan Geometri dan Lukisan Bangunan	Geometrical and Building Drawing
Lukisan Geometri dan Lukisan Mekanik (Lukisan Geometri dan Kejenteraan)	Geometrical and Mechanical Drawing
Lukisan Teknikal	Technical Drawing
Lulus	Pass
Lulus Dengan Kepujian	Pass with Credit
Lulus Penuh	Full Pass
Lulus Peringkat Biasa	Ordinary Level Pass
Lulus Sebahagian	Partial Pass
Makanan dan Pemakanan	Food and Nutrition
Master	Master's Degree
Matapelajaran	Subjects
Matapelajaran Tunggal	Single Subjects
Matematik	Mathematics
Matematik Gunaan	Applied Mathematics
Matematik Lanjutan	Further Mathematics
Matematik Moden	Modern Mathematics
Matematik Tambahan	Additional Mathematics
Matematik Tulen (Tulin)	Pure Mathematics
Mekanik	Mechanical
Melayu	Malay
Menaip	Typewriting
Menggeras dan Memesin	Fitting and Machining
Muzik	Music
Pelajaran	Education
Pelajaran Jasmani	Physical Education
Pembinaan Bangunan	Building Construction
Pengajian Hal Ehwal Malaysia	Malaysian Studies
Pengajian Kemasyarakatan	Social Studies
Pengetahuan Ugama (Agama) Islam	Islamic Religious Knowledge
Pengetahuan Ugama (Agama) Islam Tinggi	Advanced Islamic Religious Knowledge
Pengetahuan Perdagangan Am	General Commercial Knowledge
Pengubatan	Medical
Pengurusan Harta Benda	Property Management
Penilaian	Valuation
Penilaian Darjah Lima	Standard Five Assessment
Penyamanan Udara dan Penyejukan	Air Conditioning and Refrigeration
Pepasangan Penyenggaraan Letrik	Electrical Installation and Maintenance
Peperiksaan	Examination
Perakaunan	Accounting
Perancangan Bandar dan Wilayah	Urban and Regional Planning
Peraturan Pejabat	Office Procedures
Perdigangan	Commerce

Perkembangan	Development
Perniagaantani	Business
Pernyataan	Statement
Persekolahan	School
Pertanian	Agriculture
Pertukangan Kayu	Woodwork
Pertukangan Tangan	Crafts
Perubatan	Medicine
Perubatan Veterinar	Veterinary Medicine
Prinsip Akuan	Principles of Accounting
Pusat	Unit
Rampaian Sains	General Science
Rampaian Sains Tambahan	Additional General Science
Rawatan Radio, TV dan Letronkik	Radio, TV Servicing and Electronics
Sains	Science
Sains Awalam	Elementary Science
Sains Kemasyarakatan	Social Science
Sains Paduan	Integrated Science
Sains Politik	Political Science
Sains Rumahtangga	Home Science
Sains serta Pendidikan	Science with Education
Sarjana	Master's Degree
Sarjanamuda (also *Sarjana Muda, Bacelor)*	Bachelor's Degree
Sarjana Muda (also *Sarjanamuda, Bacelor)*	Bachelor's Degree
Sarjana Muda Sains serta Pendidikan	Bachelor of Science with Education
Satu	One
Sastera	Arts
Sejarah	History
Sekolah	School
Sekolah Bantuan	Assisted School
Sembilan	Nine
Semenanjung Malaysia	Peninsular Malaysia
Seni Lukis	Art
Seni Perusahaan	Industrial Arts
Senibina	Architecture
Shariah (also *Syariah*)	Islamic Law
Sidang Merancang	Planning Session
Sijil	Certificate
Sijil Pelajaran Malaysia	Malaysia Certificate of Education
Sijil Pelajaran Vokesynal (also *Vokasional) Malaysia*	Malaysia Certificate of Vocational Education
Sijil Perdagangan Malaysia	Malaysia Commercial Certificate
Sijil Rendah Pelajaran	Lower Certificate of Education
Sijil Tinggi Persekolahan Malaysia (also *Sijil Tinggi Persekolahan*)	Malaysian Higher School Certificate
Simpankira	Bookkeeping
Sosiologi	Sociology
Statistik	Statistics
Stenografi	Stenography

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Sukatan Malaysia	Malaysian Syllabus
Syariah (also *Shariah*)	Islamic Law
Tambahan	Additional
Tatarakyat	Civics
Tawarikh	History
Teknik	Technical
Tidak Hadir	Absent
Tidak Lulus	Fail
Tiga	Three
Tinggi	Higher
Trengkas Melayu	Malay Shorthand
Tujuh	Seven
Ugama (also *Agama*)	Religious Knowledge
Ujian Amali	Practical Test
Ujian Darjah Tiga	Standard Three Tests
Ukur	Surveying
Ukur Bahan	Quantitative Surveying
Undang-Undang Awam	Public Law
Undang-Undang Islam	Islamic Law
Universiti	University
Usuluddin	Islamic Theology
Vokesynal (or *Vokasional*)	Vocational

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